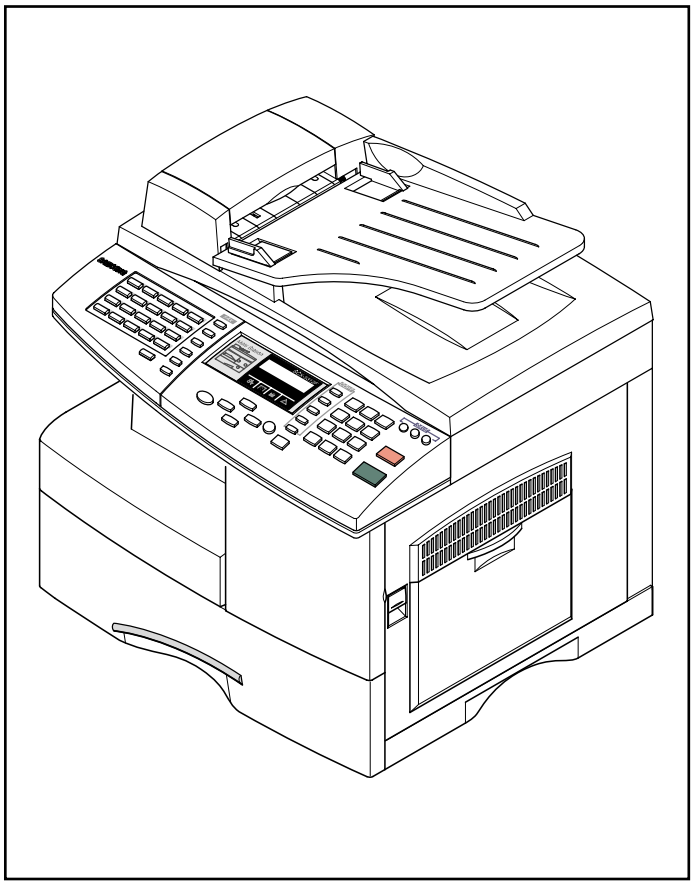
SAMSUNG

DIGITAL LASER MFP
SCX-5315F Series
SCX-5315F
SCX-5115

SERVICE MANUAL

DIGITAL LASER MFP



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2. Specification

Specifications are correct at the time of printing. Product specifications are subject to change without notice. See below for product specifications.

2-1 General Specifications

Item	Description
Type of Unit	Desktop
Operation System	Win95/98/ME/ NT /2000/XP
Duplex Printing	Yes(Default)
Interface	IEEE1284(ECP)
	USB(without HUB mode)
CPU	120 MHz(ARM946ES)
Emulation	PCL6
Warming up Time	30 Sec (Stand-By), 25˚C
Absolute Storage Condition	Temperature : -20°C ~ 40°C, Humidity : 10% RH ~ 95% RH
Operating Condition	Temperature : 10˚C ~ 32˚C, Humidity : 20% RH ~ 80 % RH
Recommended Operating Condition	Temperature : 16°C ~ 30°C, Humidity : 30% RH ~ 70% RH
Dimension(W X D X H)	560 X 433 X 459 mm
Weight	About 22.5 Kg(with CRU)
* Acoustic Noise	Less than 56/50 dB(Copy/Printing mode)
Power Rating	AC 100VAC ~ 127VAC ± 15 %, 50/60Hz ± 3Hz AC 220VAC ~ 240VAC ± 15 % , 50/60Hz ± 3Hz
Power Consumption	Avg. 320Wh
Power Save Consumption	Avg. 35Wh
Recommended System Requirement	Pentium IV 1.2 Ghz, 128 MB RAM, 220MB(Hard Disk)
Minimum System Requirement	Pentium II 400Mhz, 64 MB RAM, 120MB(Hard Disk)
LCD	16 characters X 2 lines
Memory	4 Mbyte for flash Memory , 16 Mbyte for SDRAM

* Sound Pressure Level, ISO 7779

2-2 Printer Specifications

Item	Description
Printing Method	Laser Scanning Unit + Electro Photography
*Speed	Single Side : Up to 15 PPM (Letter Size, 5% Character Pattern)
	Duplex : Up to 7.5 IPM(Images/Min) (Letter Size, 5% Character Pattern)
Source of Light	LSU(Laser Scanning Unit)
Duplex Printing	Yes(Default)
Resolution(Horizontal X Vertical)	Up to 1200 x 1200 DPI effective output
Feed Method	Cassette Type , By Pass Tray, ADF(Automatic Document Feeder)
Feed Direction	FISO(Front-In Side-Out)
Paper Capacity(Input)	Cassette : 550 Sheets By Pass Tray : 100 Sheets(based on 75g/ß≥, 20lb)
Paper Capacity(Output)	Face Down : 250 Sheets
Effective Print Width	203 ± 1mm (8 inch)

* Print speed will be affected by Operating System used, computing performance, application software, connecting method, media type, media size and job complexity.

2-3 Facsimile Specification(SCX-5315F Only)

Item	Description
Standard Recommendation	ITU-T Group3(ITU : International Telecommunications Union)
Application Circuit	PSTN or behind PABX (PSTN : Public Switched Telephone Network. PABX : Private Automatic Branch Exchange)
Data coding(Compression)	MH/MR/MMR/JPEG(Transmission)
Modem speed	33600 /14400/12000/9600/7200/4800/2400 bps
Transmission Speed	Approximately 3 sec(33,600 bps)
Effective Scanning Width	8.2 inches(208 mm)
Halftone	256 Levels
Paper Capacity(Input)	ADF(Automatic Document Feeder) : 30Sheets(75g/ß≥)
FAX Mode	Standard /Fine/Super Fine/Halftone
Memory	4MB

2-4 Scanner Specification

Item	Description
Type	Flatbed(with ADF)
*Speed	Mono : Up to 1.2 msec/line, Color : Up to 2.5 msec/line
Device	Color CCD(Charge Coupled Device) Module
Interface	IEEE1284(ECP Support) USB(without HUB Mode)
Compatibility	TWAIN Standard , WIA
Optical Resolution(H X V)	Up to 600 x 600 DPI effective output
Interpolation Resolution	Max. 4800 dpi
Halftone	256 Levels
Effective Scan width	8.2 inches(208 mm)

* Speed will be affected by Operating System used, computing performance, application software, connecting method, media type, media size and job complexity.

2-5 Copy Specification

Item	Description
Mode	B/W
Quality	Text/Photo/Mixed
Mono Copy Speed(1)	Platen(SDMP) : Up to 12 cpm in A4 size, IDC 5% pattern ADF (SDMP) : Up to 12 cpm in A4 size, IDC 5% pattern ADF (MDSP) : Text/mixed : Approx. 7 cpm in A4 size, IDC 5% pattern : Photo : Approx. 3 cpm in A4 size, IDC 5% pattern
Optical Resolution (H x V)	Up to 600 x 600 DPI effective output
Multi Copy	99 pages
Maximum Original Size	Legal
Maximum Page Size	Legal
Paper Type Selection	Plain , Legal , Cardstock , Transparency
Zoom Range	Platen : 25 ~ 400%(1% Step) ADF : 25~100 %(1% Step)

NOTE :
(1) Speed claims based on the test chart : Letter size.
SDMP : Single Document Multiple Printout
MDSP : Multiple Document Single Printout
• Speed will be affected by Operating System used, computing performance, application software, connecting method, media type, media size and job complexity.

2-6 Telephone Specification(SCX-5315F Only)

Item	Description
Speed Dial	80EA
Tone/Pulse	Tone only user modeTone/Pulse selectable in tech mode.

2-7 Consumables

Item		Description
Type		Separate type (Toner Cartridge / Drum Cartridge)
Life	Toner Cartridge	Up to 6,000 sheets (5% coverage pattern, simplex normal mode)
	Drum Cartridge	Up to 15,000 sheets (simplex normal mode)

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3. Disassembly and Reassembly

3-1 General Precautions on Disassembly

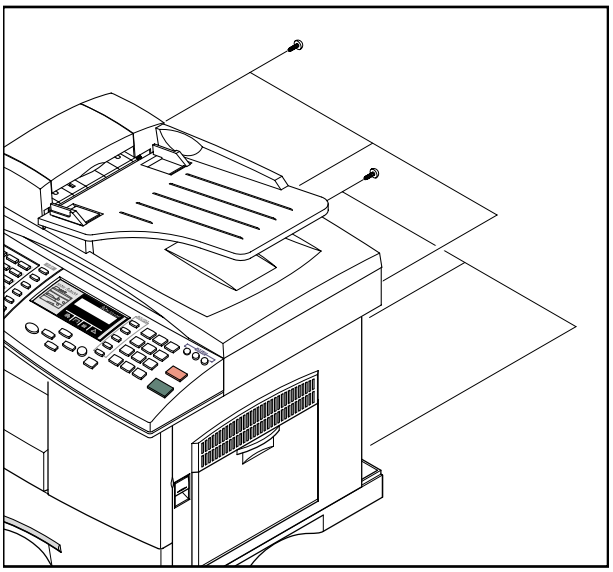
When you disassemble and reassemble components, you must use extreme caution.
The close proximity of cables to moving parts makes proper routing a must. If components are removed, any cables disturbed by the procedure must be restored as close as possible to their original positions. Before removing any component from the machine, note the cable routing that will be affected.

Whenever servicing the machine, you must carry out the following :

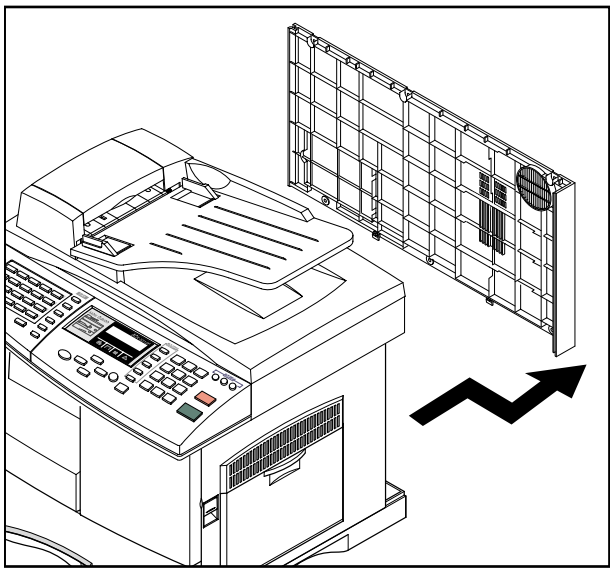
1. Check to verify that documents are not stored in memory.
2. Unplug the power cord.
3. Use a flat and clean surface.
4. Replace only with authorized components.
5. Take care when removing plastic component-do not force.
6. Make sure all components are in their proper position.

3-2 Rear Cover

1. Remove the six screws securing the Rear Cover.



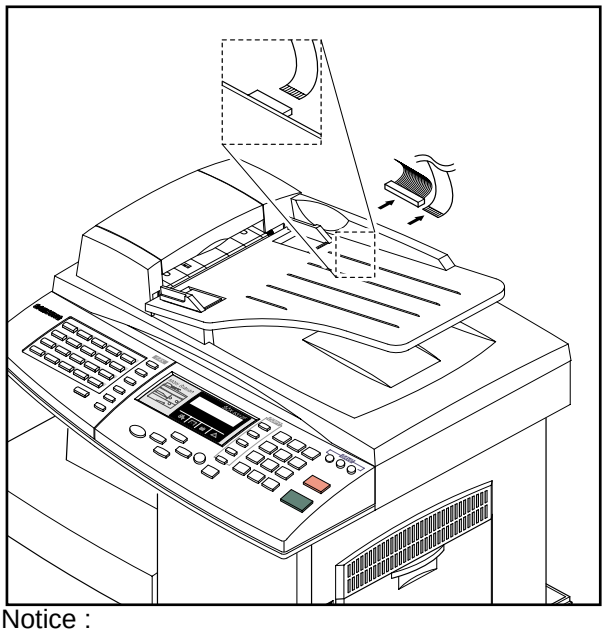
2. Separate the rear cover from the base frame and Scanner Ass'y.



3-3 Scanner Ass'y

1. Before you remove the Scanner Ass'y, you should remove:
   - Rear Cover (see page 3-1)

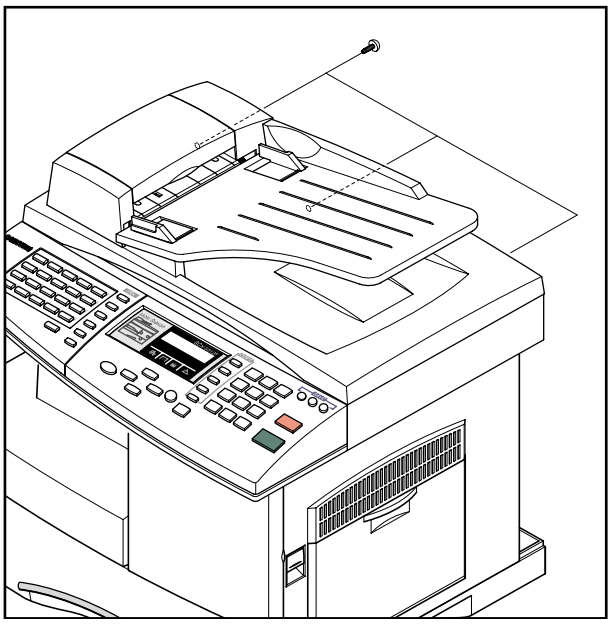
2. Take out the Shield Main Upper.Unplug the one connector and CCD cable.



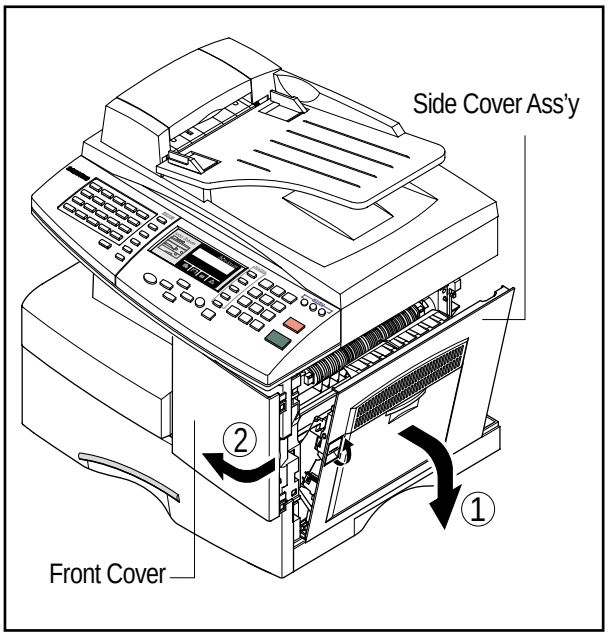
Notice :

To avoid damage to the CCD cable connector ensure that you pull the cable out carefully. Pull in line with the connector not at an angle.

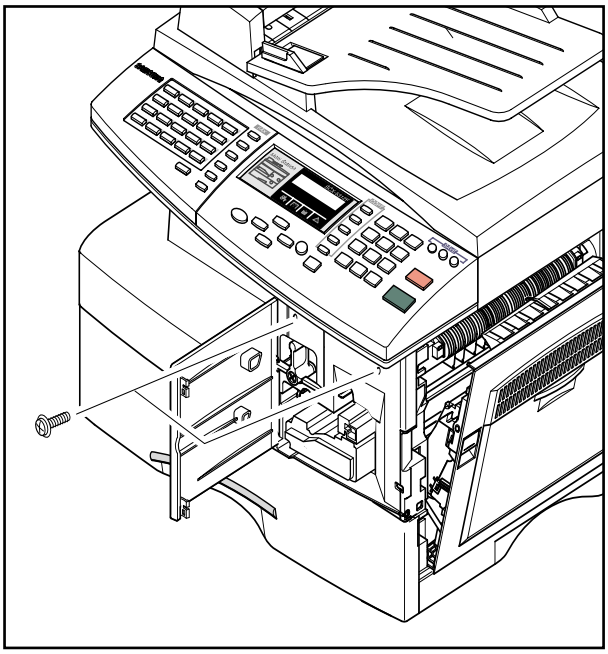
3. Remove the three screws, as shown below.



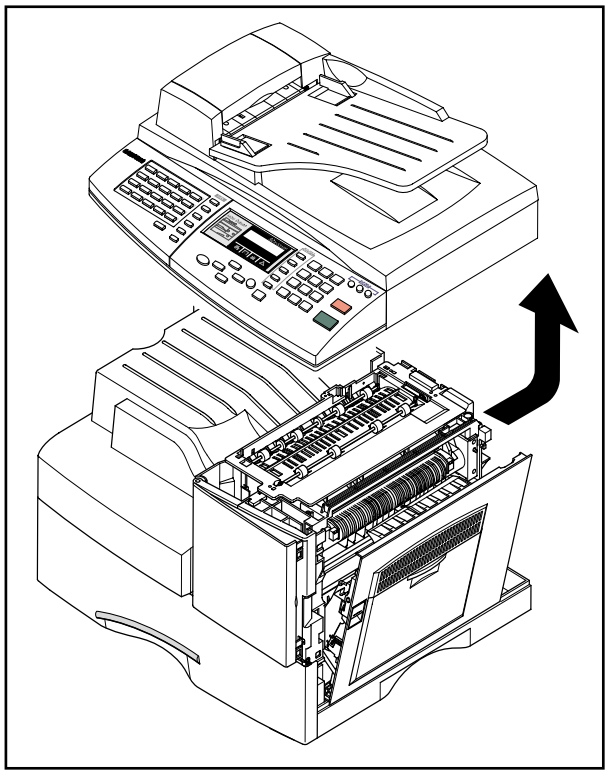
4. Open the Side Cover assembly first to open the Front cover. In the other words, close the front cover first to assembly it.



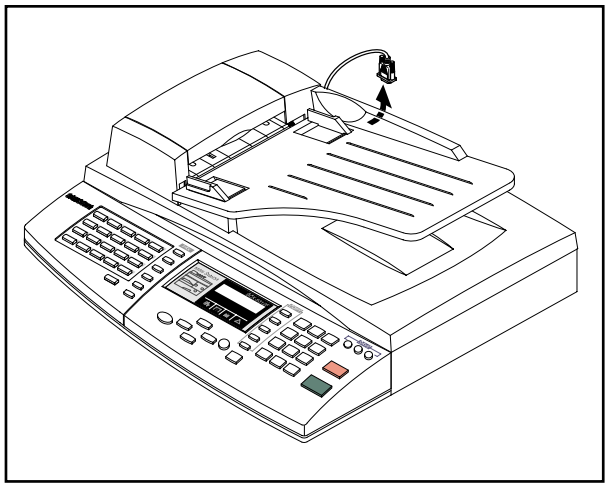
5. Remove two screws.



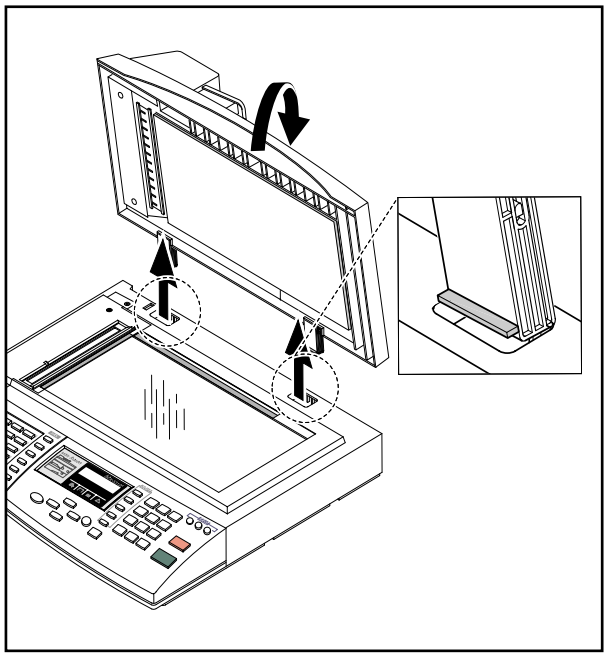
6. Pull up the Scanner Ass'y in the direction of arrow.



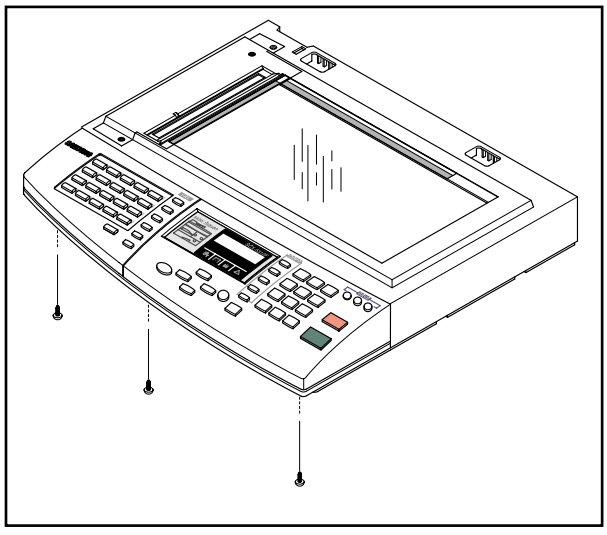
7. Remove the connector from the Platen Ass'y.



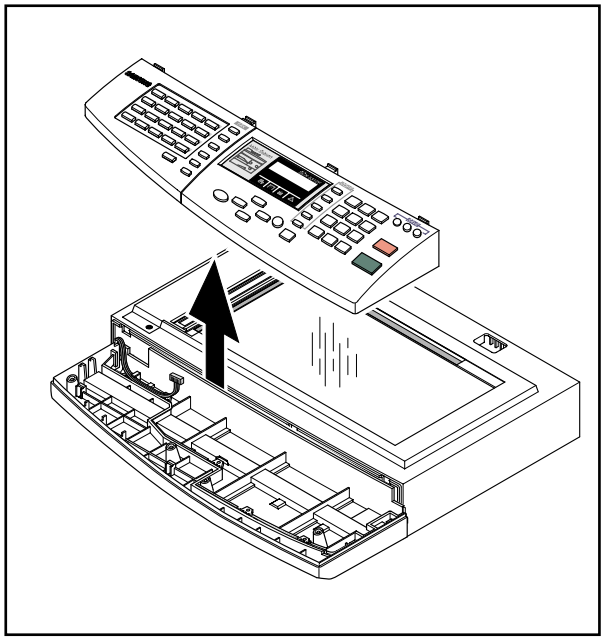
8. Open the ADF Ass'y in the direction of arrow. Pull the ADF Ass'y upward and remove it.



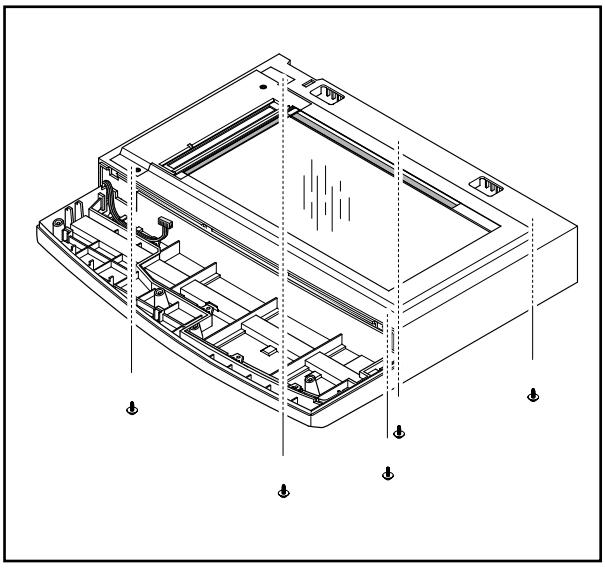
9. Remove the three screws securing the Platen Ass'y.



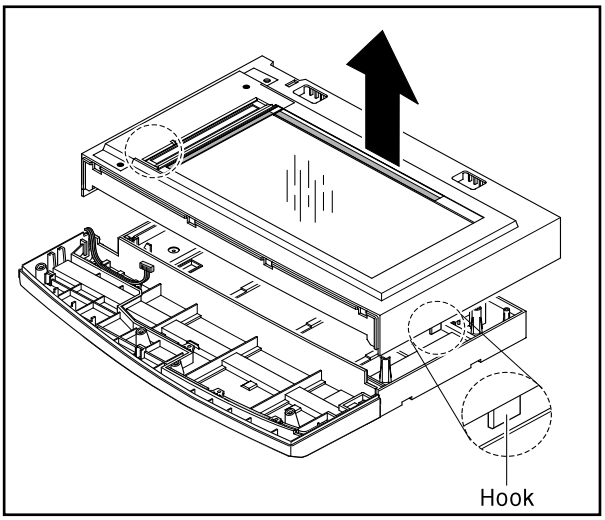
10. Pull the OPE Ass'y and unplug the one connector.



11. Remove the five screws securing the Platen Ass'y.



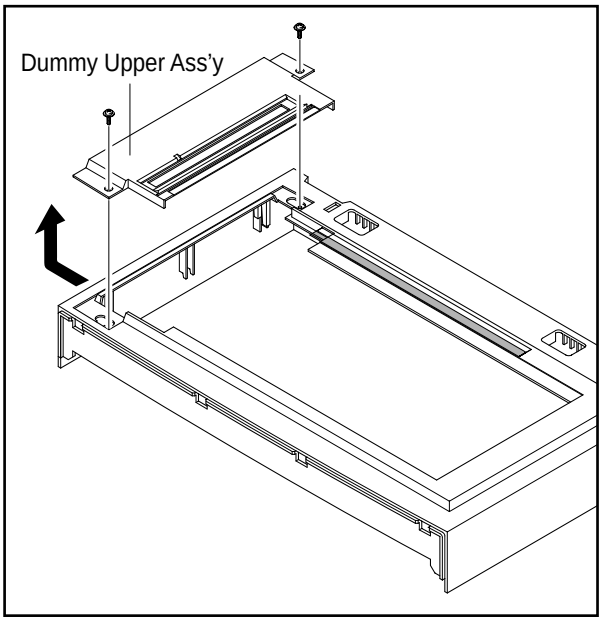
12. Unlatch the Scan Upper Ass'y securing the glass and remove it.



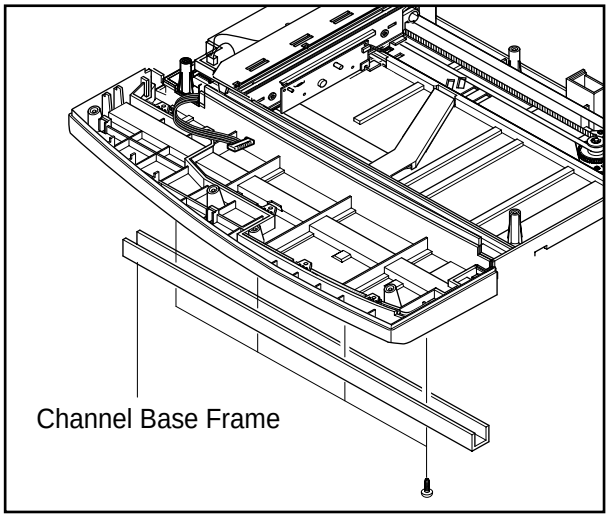
Notice :

When dismantling the Scan Assy ensure your work area is clean. Dirt or dust on the scan head can lead to a degradation in scanned image quality.

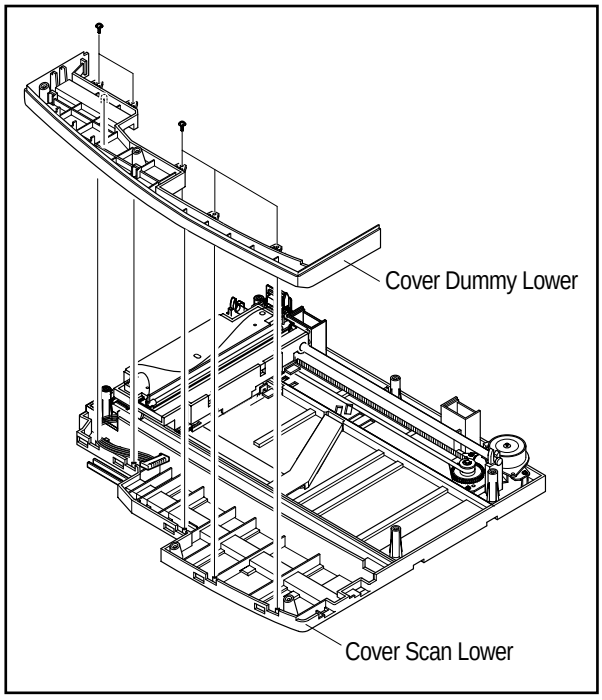
13. Remove the two scews and pull the Dummy Upper Ass'y.



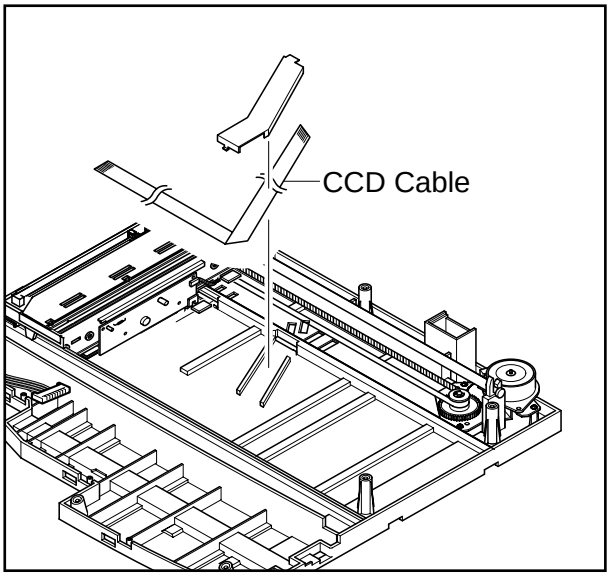
14. Remove the four screws and Channel Base Frame.



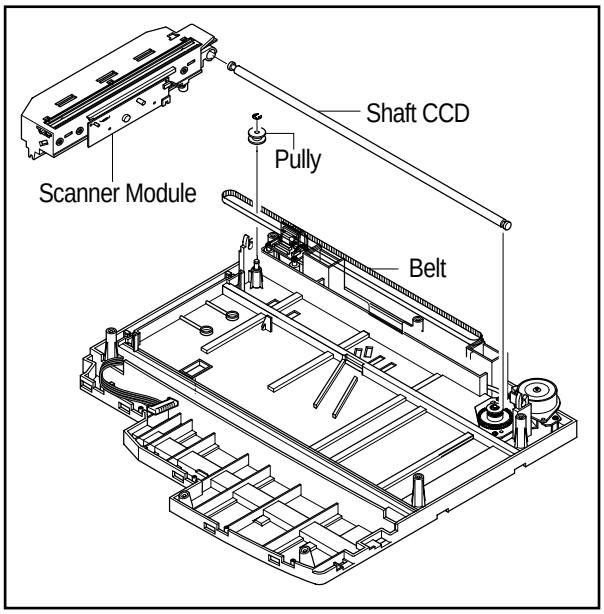
15. Remove the five screws and Dummy Scan-Lower.



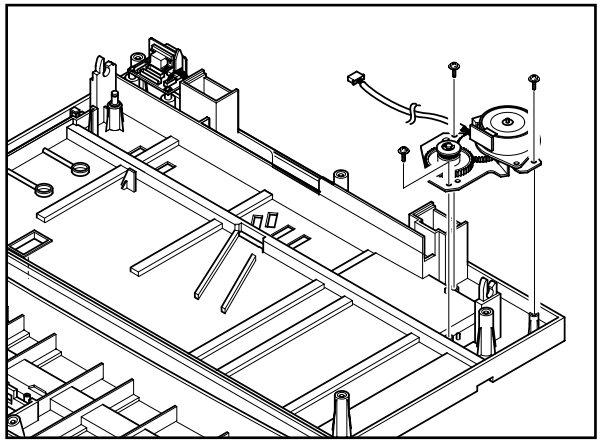
16. Remove the CCD cable.



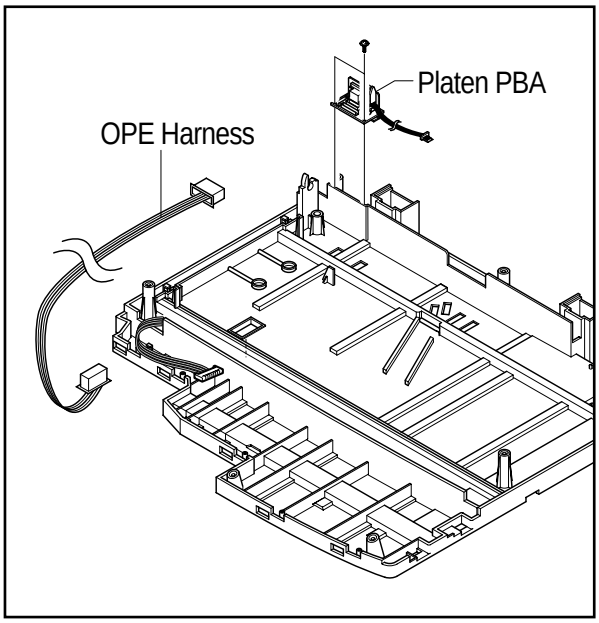
17. Pull up the Shaft CCD and take out the Scanner Module.



18. Remove three screws and take out the Motor Bracket.

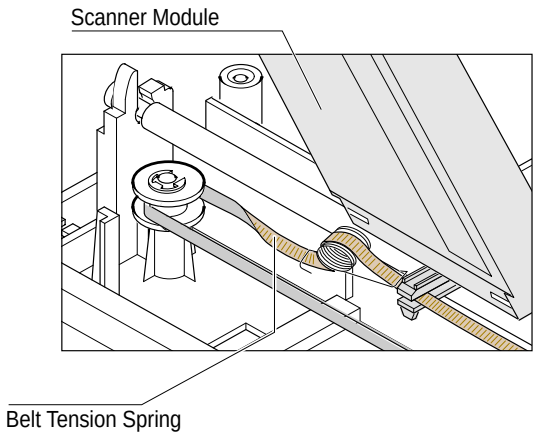


19. Remove the OPE Harness from the Platen PBA. Remove two screws and take out the Platen PBA.



Notice :

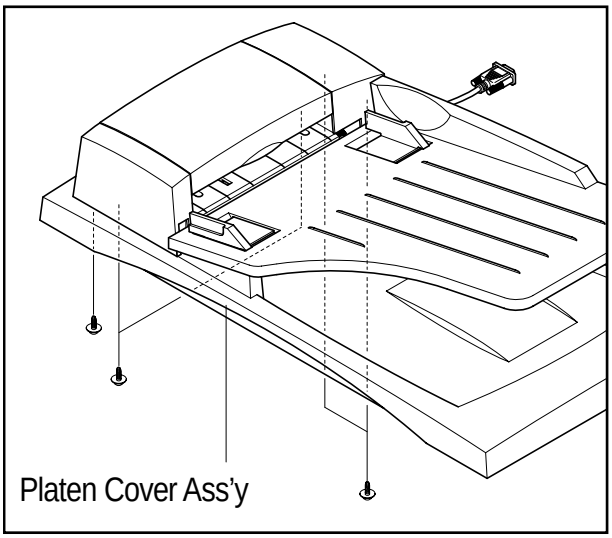
Take special care when reassembling the CCD Module onto the Platen Ass'y. The CCD Module is located just to the right side the Belt Tension Spring as shown below.



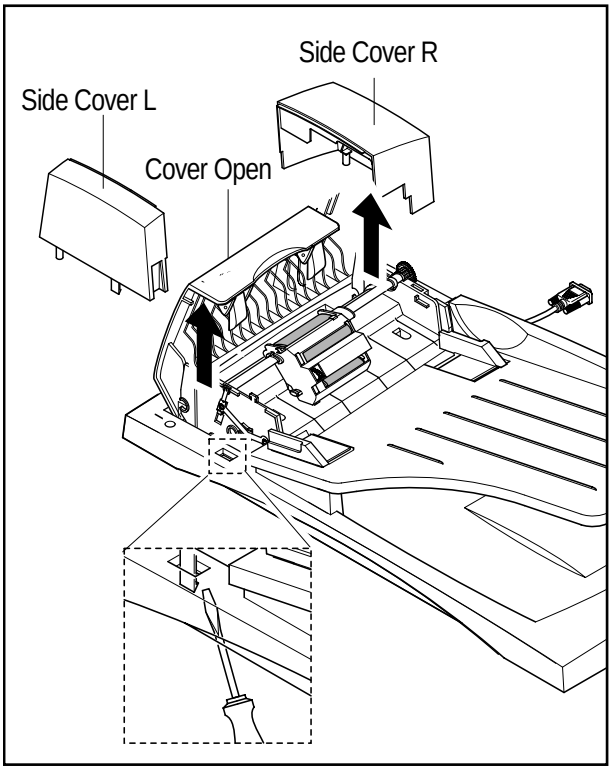
3-4 ADF Ass'y

1. Before you remove the ADF Ass'y, you should remove:
   - Rear Cover (see page 3-1)
   - Scanner Ass'y (see page 3-2)

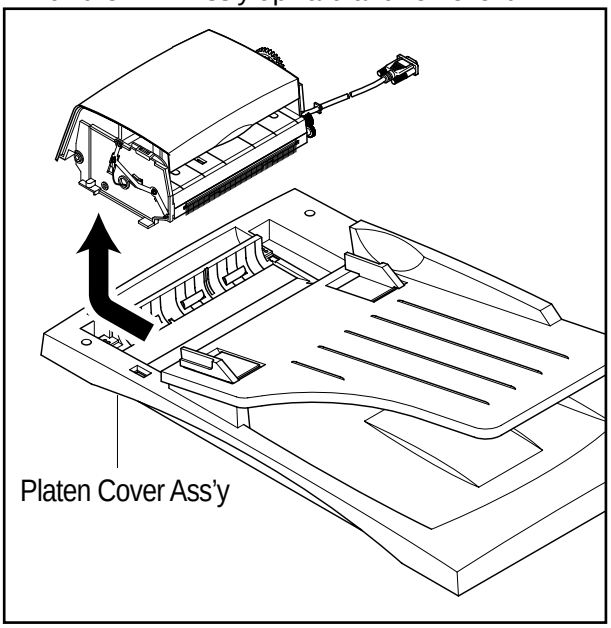
2. Remove the five screws from the Platen Cover.



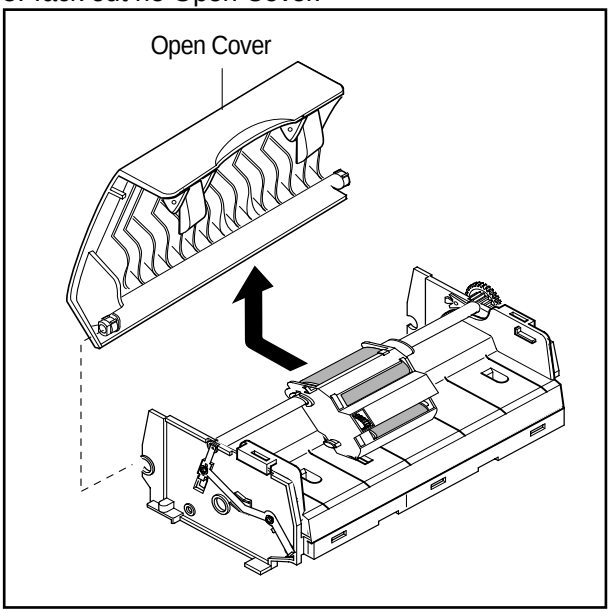
3. Open the Cover. Remove Cover Side R. Unlatch the Side Cover L by pushing the catch hooked to the Platen Cover using a sharp tool and remove Side Cover L.



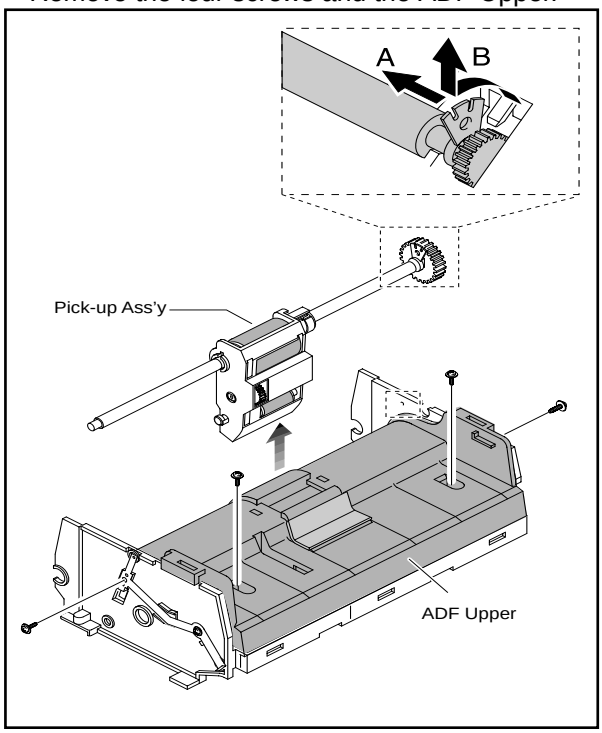
4. Pull the ADF Ass'y upward and remove it.



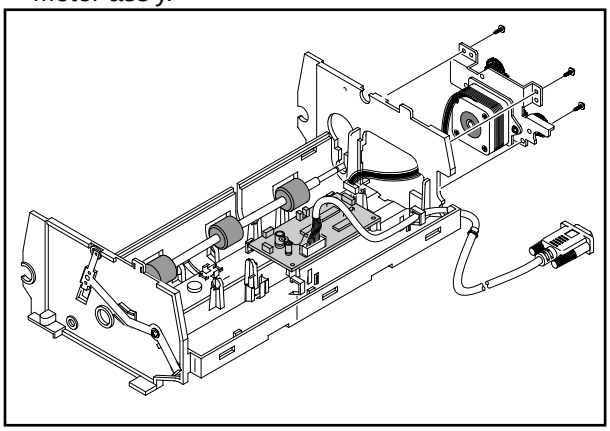
5. Tack out he Open Cover.



6. Take out the Pick-up Ass'y.
   Remove the four screws and the ADF Upper.



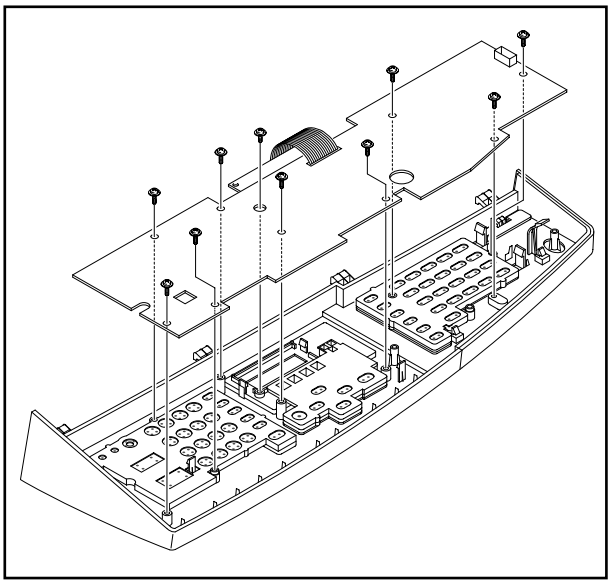
7. Remove three screws and take out the ADF Motor ass'y.



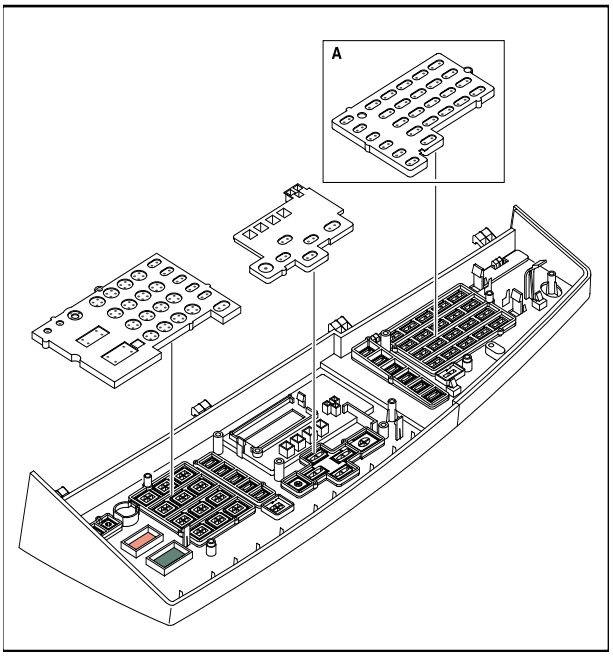
3-5 OPE Ass'y

1. Before you remove the OPE Ass'y, you should remove:
   - Rear Cover (see page 3-1)
   - Scanner Ass'y (see page 3-2)

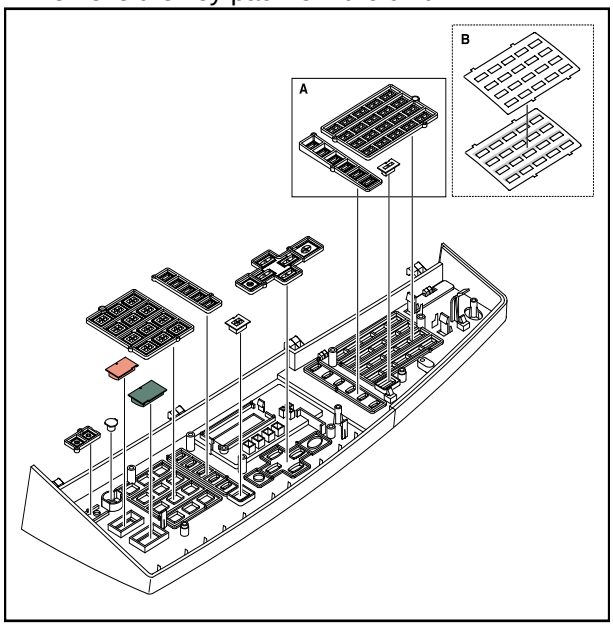
2. Remove ten screws securing the OPE PBA and the LCD Module from the OPE Cover.



3. Remove the contact rubbers from the unit.



4. Remove the key pad from the unit.

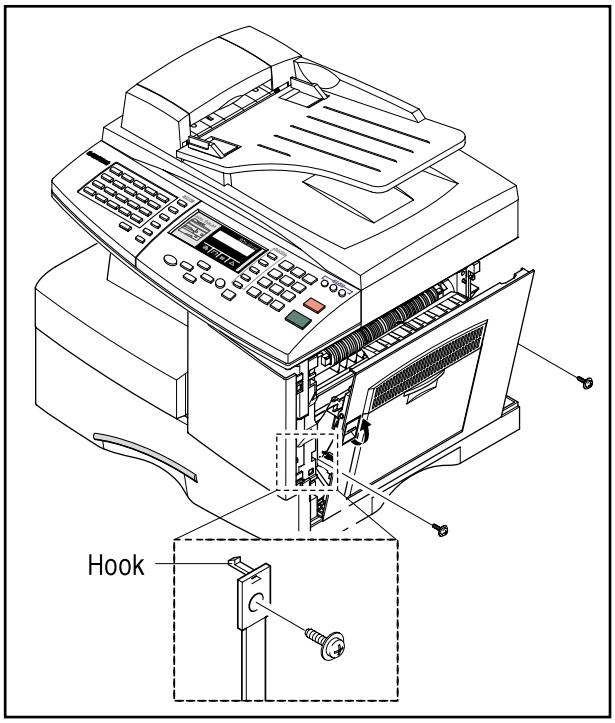


Caution

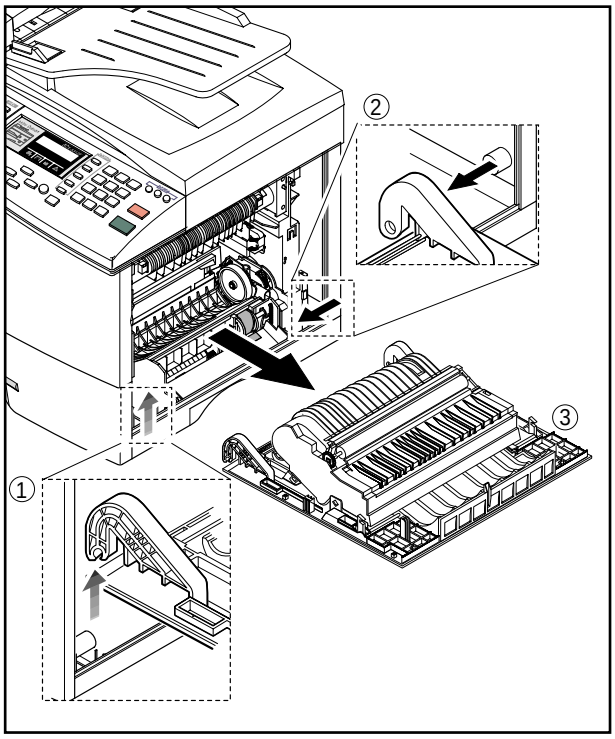
The above information is for the SCX-5315F model.
For the SCX-5115 model, the OPE Ass'y is slightly different, prats maked "a" are not fitted.

3-6 Side Cover Ass'y

1. Remove the two screws to release the Stopper(Main Frame side) securing the Side Cover to the Main Frame.

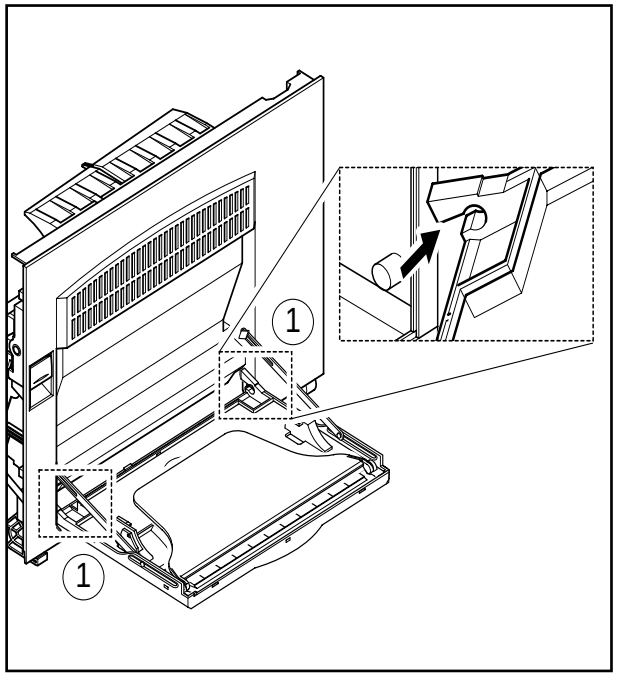


2. Completely open the Side Cover door. The left hand hinge (1) should be lifted to free it. Then push the whole door assembly to the left to free the right hand hinge (2).

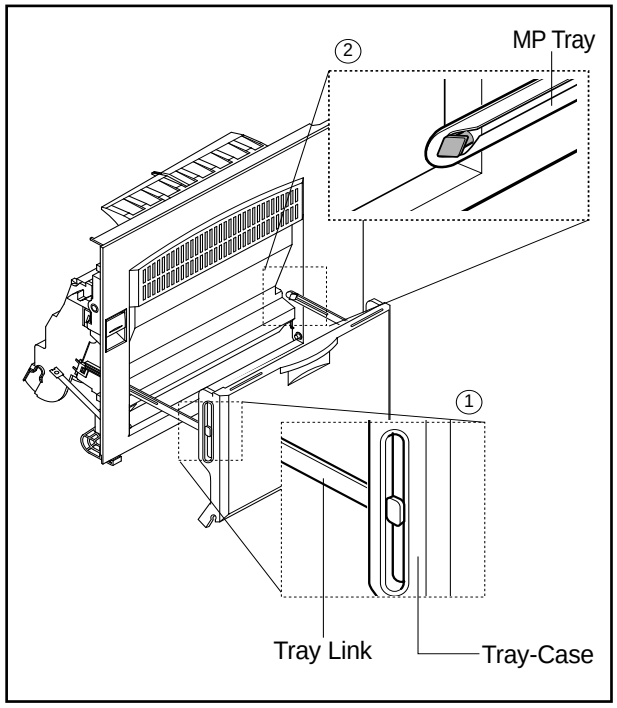


* MP-Tray

1. To dismantle the MP tray release the lower hinges (1).

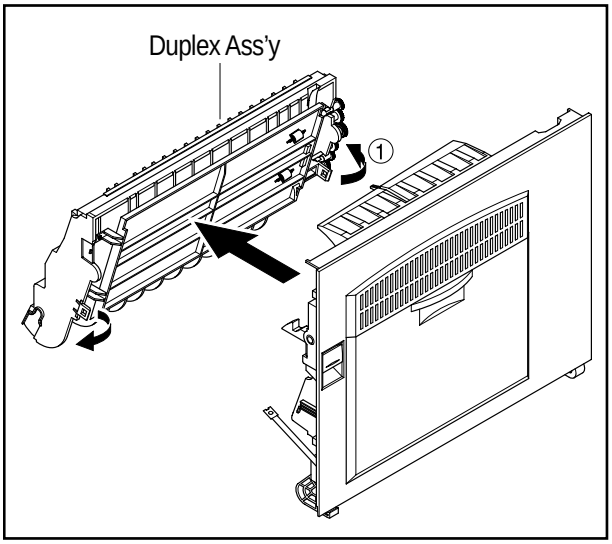


2. As shown in (1) below align the door supports in a horizontal position. This will allow the Tray-Case to be removed from the Tray Links. To remove the Tray-Links adjust the position of the Tray Link to a 45?angle to align the slot in the



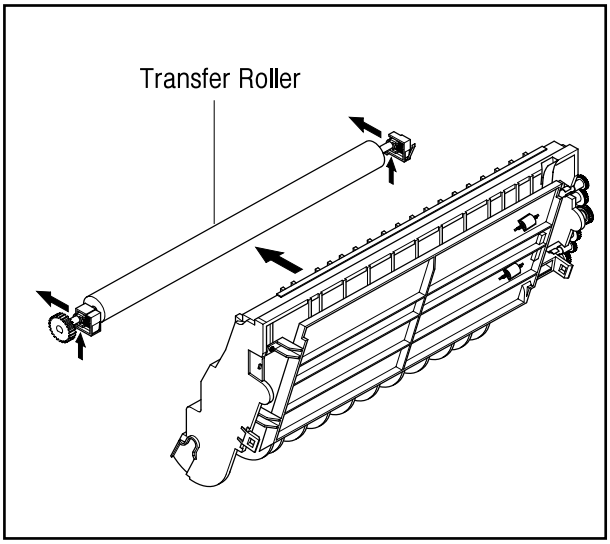
* Duplex Ass'y

1. To remove the Duplex Ass'y from the Side Door Ass' locate the plastic clips, 2 on each side, and release them.



* Transfer Roller Ass'y

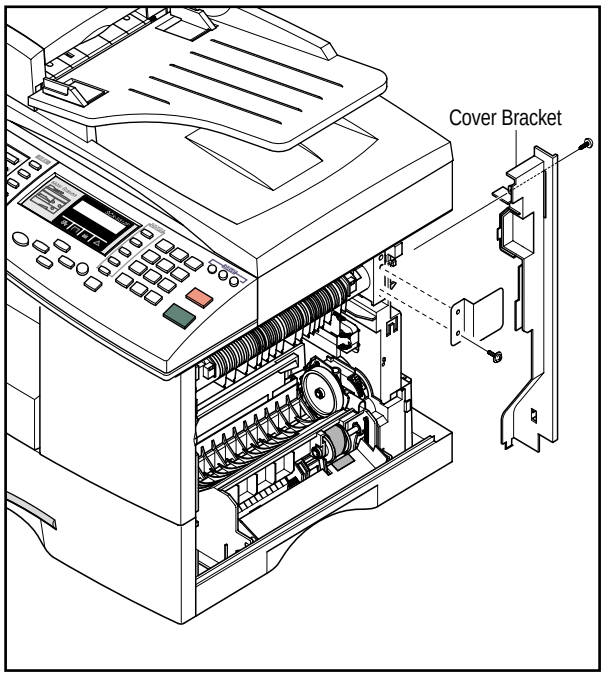
1. Take out the Transfer Roller, as shown below.



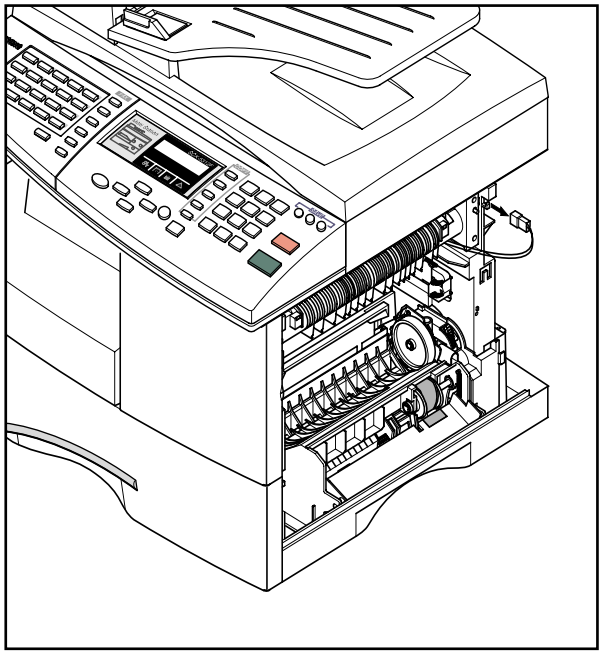
3-7 Fuser Ass'y

1. Before you remove the Fuser Ass'y, you should ensure power is off and remove :
   - Rear Cover Ass'y (see page 3-1)
   - Side Cover Ass'y (see page 3-9)

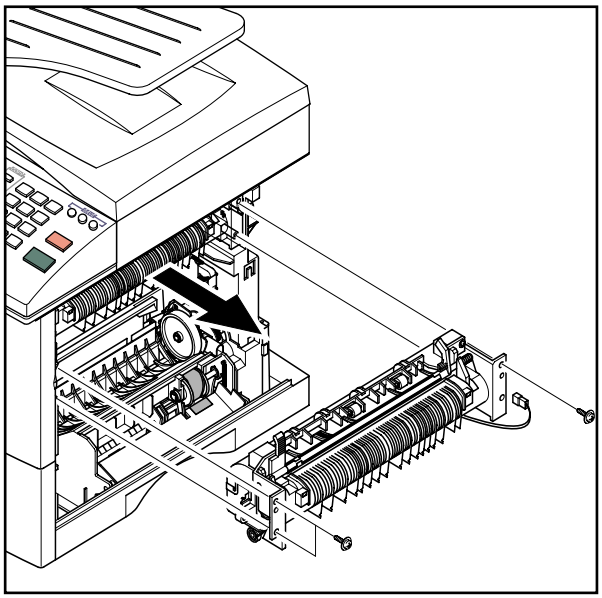
2. Remove the two screws and take out the Connector Cover and the Cover Bracket.



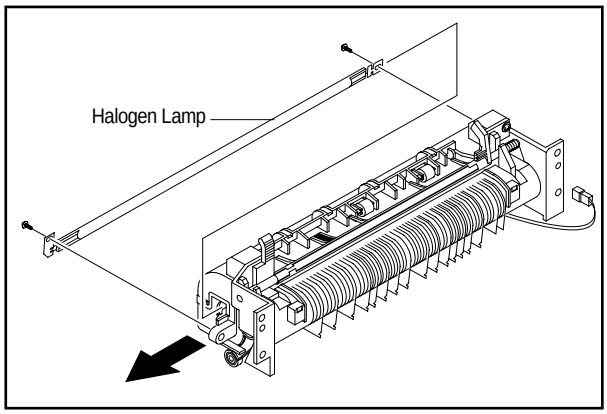
3. Unplug the one connector.



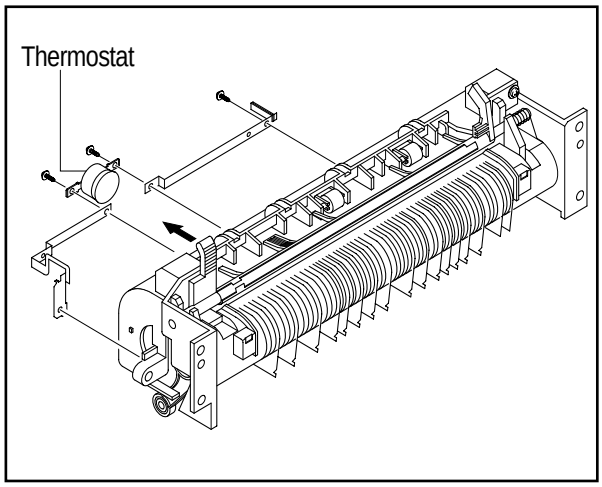
4. Remove the three screws and take out the Fuser Ass'y.



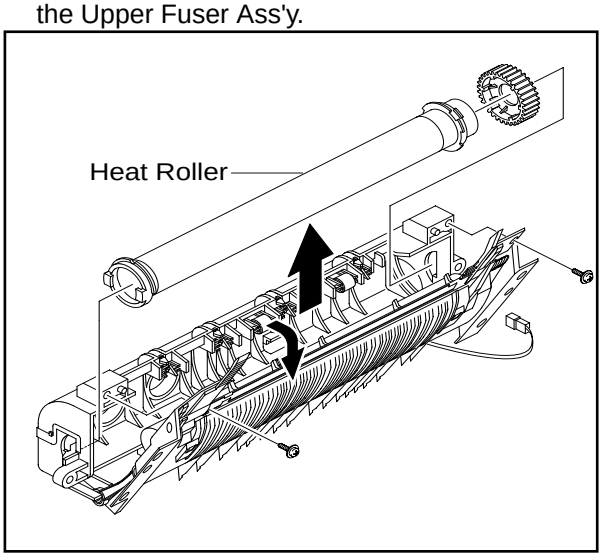
5. Remove the four screws and take out the Thermostat.



6. Remove the two screws and take out the Halogen Lamp.



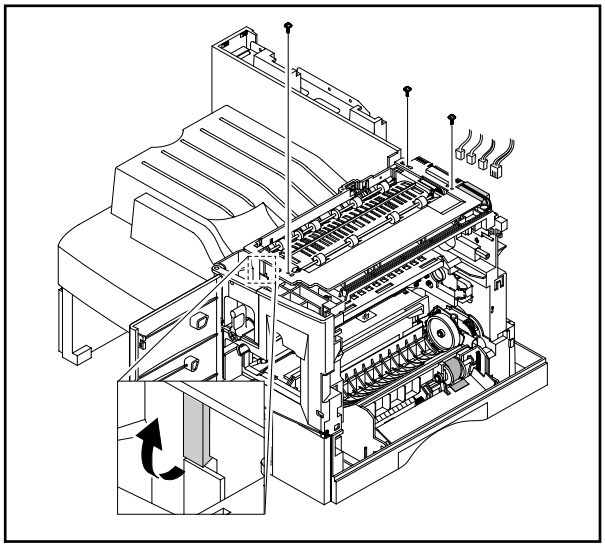
7. Remove 2 screws and hinge open the Lower Fuser Ass'y, remove the Heat Roller Ass'y from the Upper Fuser Ass'y.



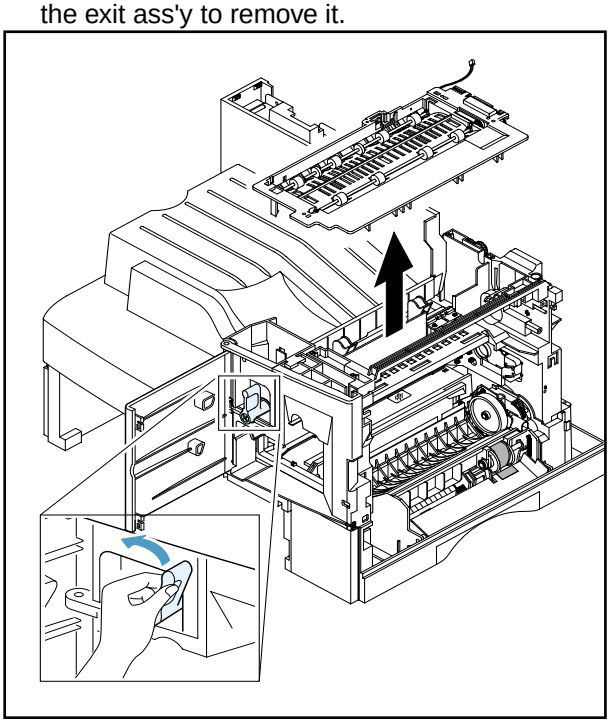
3-8 Exit Ass'y

1. Before you remove Exit Ass'y, you should remove:
   - Rear Cover (see page 3-1)
   - Scanner Ass'y (see page 3-2)

2. Remove four screws, and then untie the harness from the Exit Upper. Unplug four connectors and unlatch the Dummy Base Frame, as shown below.



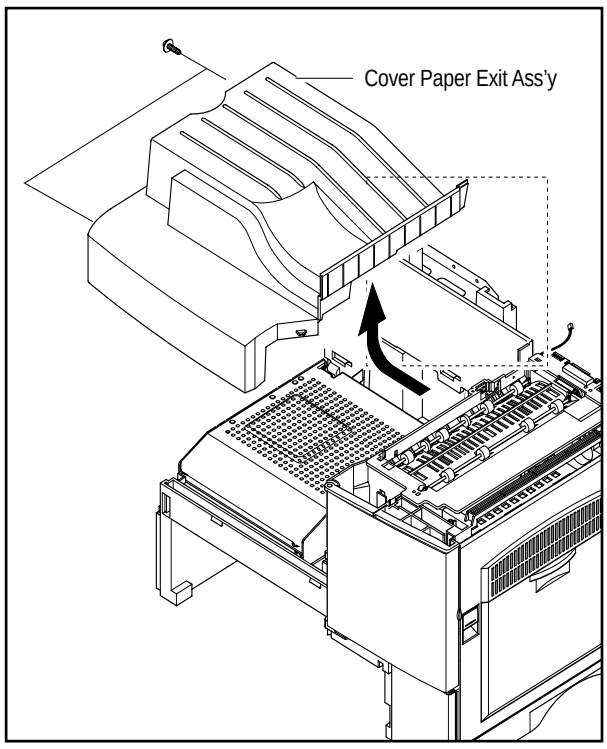
3. Move the Exit Roller Release Lever to the upright position as shown in the diagram below and lift the exit ass'y to remove it.



3-9 Cover Paper Exit Ass'y

1. Before you remove the Cover Paper Exit Ass'y, you should remove:
   - Rear Cover (see page 3-1)
   - Scanner Ass'y (see page3-2)

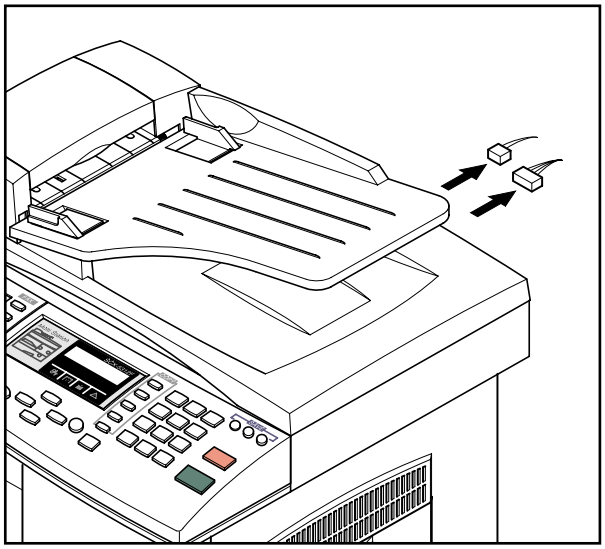
2. Remove two screws and Cover Paper Exit Ass'y, as shown below.



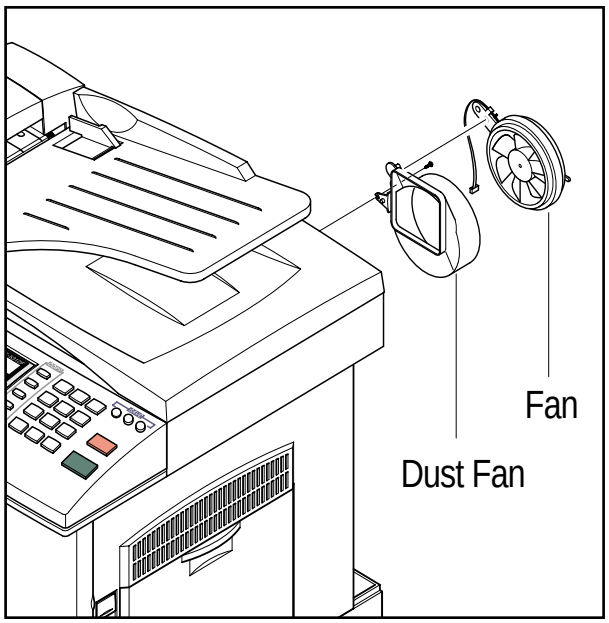
3-10 Drive Ass'y

1. Before you remove the Drive Ass'y, you should remove:
   - Rear Cover (see page 3-1)
   - Shield Main Upper (see page 3-2)

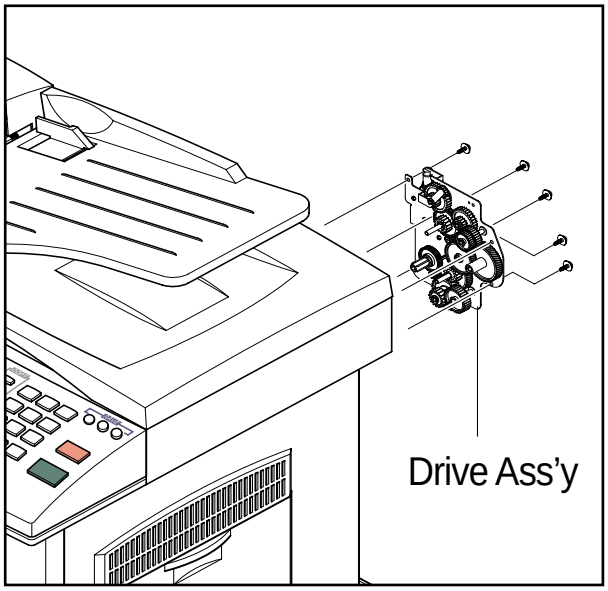
2. Unplug the two connectors.
   (Main Motor:9pin, Duplex Solenoid : 2pin)



3. Remove the one screw and take out the Fan and Dust Fan.



4. Remove the five screws and take out the Drive Ass'y.



4. Maintenance & Troubleshooting

This chapter covers product maintenance, problem diagnosis and troubleshooting. It includes instructions for diagnosing and resolving print quality problems.
This service manual covers both the SCX5315F and SCX5115 models. SCX5115 has printer, copier and scanner functions. The SCX5315F has all of the features of the SCX5115 and in addition has Fax capabilities. The manual contents are primarily written for the SCX5315F, where there are differences between the two models this is highlighted.

4-1 Preventative Maintenance

The cycle period outlined below is a general guideline for maintenance.
The example list is for an average usage of 50 transmitted and received documents per day.
Environmental conditions and actual use will vary these factors.
The cycle period given below is for reference only.

COMPONENT	REPLACEMENT CYCLE
ADF Rubber	20,000 Pages
ADF Roller	50,000 Pages
Pick-up Roller	75,000 Pages
Transfer Roller	75,000 Pages
Fuser	75,000 Pages
Toner Cartridge	6,000 Pages
Drum Cartridge	15,000 Pages

4-2 Error Messages

Error Message	Description	Solution
RETRY REDIAL?	The machine is waiting for the programmed interval to automatically redial.	You can press START to immediately redial, or STOP to cancel the redial operation.
COMM. ERROR	A problem with FAX communications has occurred.	Try again.
DOCUMENT JAM	Loaded document has Jammed in the scanner document feeder	Clear the document Jam.
DOOR OPEN	The side cover is not securely latched	The side door and front door must be closed in the correct order. Open both doors. Close the front door first then close the side door.
GROUP NOT AVAILABLE	You have tried to select a group location where only a single location number can be used, such as when adding locations for a multi-dial operation.	Try again, check location for group.
LINE ERROR	Your unit cannot connect with the remote machine, or has lost contact because of a problem on the phone line.	Usually caused by a telephone line problem. Try again. If failure persists, wait an hour or so for the line to clear then try again
LOAD DOCUMENT	You have attempted to set up a sending operation with no document loaded.	Load a document and try again.
MEMORY FULL	The memory has become full.	Either delete unnecessary documents, or retransmit after more memory becomes available, or split the transmission into more than one operation.
NO ANSWER	The remote machine was not answered after all the redial attempts.	Try again. Make sure the remote machine is OK.
NO. NOT ASSIGNED	The speed dial location you tried to use has no number assigned to it.	Dial the number manually with the keypad, or assign the number.
NO PAPER [ADD PAPER]	There is no paper in the paper cassette. Printing stops until paper is loaded.	Re-load the paper cassette.
OVERHEAT	The printer part has overheated.	Your unit will automatically return to the standby mode when it cools down to normal operating temperature. If failure persists, call service.
PAPER JAM 0 OPEN/CLOSE DOOR	Recording paper has jammed in paper feeding area. Recording paper is jammed in pick-up unit	Press STOP and clear the jam.
PAPER JAM 1/2 OPEN/CLOSE DOOR	Recording paper has jammed inside the unit. Recording paper has jammed in paper exit unit.	Clear the jam.
TONER LOW	Toner cartridge is almost empty, or toner particles in the cartridge are unevenly distributed in the cartridge	Remove the toner cartridge and gently rock it from side to side. Try again. If problem persists replace the cartridge.
TONER EMPTY	Toner cartridge is now empty	Replace the Toner Cartridge.

Error Message	Description	Solution
DRUM WARNING	A warning that the OPC drum has almost reached the end of its life (14,000 Sides)	You have 1000 pages of print life left in the OPC Drum. Continue to use, order a new OPC drum.
REPLACE DRUM	OPC drum is now life-expired (15,000 sides)	Replace the OPC Drum Cartridge.
NO CARTRIDGE	When the machine detects that the toner cartridge has not been installed.	Install the Cartridge.
BYPASS JAM	Paper feed problem from the BYPASS (Manual feed) Tray.	Open the side Cover and clear the jam.
DUPLEX JAM	Paper feed problem in the duplex return path	Release Output Feed lever and check output area clear. Also open side door and check duplex unit is clear.
LINE BUSY	The remote FAX didn't answer	Try again.
OPEN HEAT EROR	No power to the Fuser lamp	Check thermostat, thermistor, fuser lamp and fuser connector and associated wiring. Also check the 'Fuser On' signal from main PWA to Power Supply. Check cable from Main PWA to Power Supply
Heating Error	During operation, Temperature does not go up	Check thermister contact point & Heating Lamp.
Scanner Locked	Scanner head does not move.	Check transit lock, check scanner cables are connected, check scanner home sensor, scanner motor or drive belt.

4-3 User Mode

The table below shows the settings and functions available in the User Mode. These are described in the user Guide. The table is given here to indicate possible settings that the user may have changed.

4-3-1 SCX-5315F

Function	Item	Content
SYSTEM DATA	CASSETTE PAPER	LETTER / A4 / LEGAL
	BYPASS PAPER	LETTER / A4 / LEGAL
	MESSAGE CONF.	ON / OFF / ERROR
	AUTO JOURNAL	ON / OFF
	RECEIVE CODE	0-9
	POWER SAVE	ON / OFF
	ECM MODE	ON / OFF
	RX REDUCTION	ON / OFF
	DISCARD SIZE	0-30mm
	REDIAL INTERVAL	1-15
	REDIALS	1-13
	ANSWER ON RING	1-7
	SEND FROM MEMORY	ON / OFF
	LOCAL ID	ON / OFF
	CLOCK MODE	12 / 24 HOUR
SYSTEM ID	FAX / ID	
DATE & TIME		
SYSTEM SETUP	PREFIX DIAL NO.	
	SECURE RECEIVE	
	RINGER VOLUME	LOW / HIGH (10 STEPS)
	ALARM SOUND	ON / OFF
	KEY SOUND	ON / OFF
	SPEAKER CONTROL	COM / ON /OFF
	SELECT LANGUAGE	ENG/GER/FRE/ITA/SPA/POR/DUT
	USB MODE	FAST / SLOW
	FAX DUPLEX	OFF / LONG EDGE / SHORT EDGE
	IMAGE QUALITY	NORMAL / TEXT / IMAGE
	SCAN SLEEP MODE HOME SET	
MEMORY CLEAR	SYSTEM ID	
	SYSTEM DATA	
	PHONE BOOK / MEMORY	
	TX-RX JOURNAL	
DELAY TX		
MEMORY TX		
PRIORITY TX		
POLLING		
ADD/CANCEL	ADD / CANCEL	
GROUP DIAL		

Function	Item	Content
MAINTENANCE	CLEAN DRUM	
	NEW DRUM	
	NOTIFY TONER LOW	ON / OFF
TX CONFIRM		
SCHEDULE JOB		
PHONE BOOK		
SYSTEM LIST		
TX JOURNAL		
RX JOURNAL		
HELP LIST		HELP LIST

4-3-2 SCX-5115

Function	Item	Content
SYSTEM DATA	CASSETTE PAPER	LETTER / A4 / LEGAL
	BYPASS PAPER	LETTER / A4 / LEGAL
	POWER SAVE	ON / OFF
	SELECT LANGUAGE	ENG/GER/FRE/ITA/SPA/POR/DUT
	USB MODE	FAST / SLOW
HELP LIST	HELP LIST	PRINTOUT
MAINTENANCE	CLEAN DRUM	
	NEW DRUM	
REPORTS	SYSTEM DATA	
	HELP LIST	HELP LIST

4-4 Tech Mode

4-4-1 How to Enter Service Mode

In service mode (tech) mode, the technician can check the machine and perform various tests to isolate the cause of a malfunction.

To enter the Tech mode, press **MENU, #, 1, 9, 3, 4** in sequence, and the LCD briefly displays ‘T’ or ‘TECH’, the machine has entered service (tech) mode.

While in Tech mode, the machine still performs all normal operations.

To return to normal user mode, press **MENU, #, 1, 9, 3, 4** in sequence again, or turn the power off, then on by unplugging and plugging the power cord.

Options changed while in service mode remain in effect until they are changed again or until you clear the machine’s memory.

4-4-2 Setting-up System in Tech Mode

4-4-2-1 SCX-5315F(SETUP : #, 1, 9, 3, 4)

Function	Item	Content
SYSTEM DATA	DIAL MODE	TONE / PULSE
	MODEM SPEED	
	ERROR RATE	5% /10%
	SET TX LEVEL	09-15
	SILENCE TIME	12 / NU / OFF
SYSTEM ID	The same as User Mode	
DATE & TIME	The same as User Mode	
SYSTEM SETUP	The same as User Mode	
MEMORY CLEAR	CLEAR ALL MEMORY	
DELAY TX	The same as User Mode	
MEMORY TX	The same as User Mode	
PRIORITY TX	The same as User Mode	
POLLING	The same as User Mode	
ADD/CANCEL	The same as User Mode	
GROUP DIAL	The same as User Mode	
MAINTENANCE	CLEAN DRUM	
	NEW DRUM	
	NOTIFY TONER LOW	ON / OFF
	SWITCH TEST	
	MODEM TEST	
	SRAM TEST	
	DRAM TEST	
	ROM TEST	FLASH / ENGINE
	PATTERN TEST	PATTERN1-7, QAPATTERN1-4, ALL"1-7 , ALL"
	CLEAR COUNT	PASSWORD **(1934)**
		CRU PRINTS COUNT
		FLT SCAN COUNT
		ADF SCAN COUNT
		USED DRUM COUNT
		USED TONER COUNT
		TOTAL PAGE COUNT
	ANSWER ON CNG	1-4
	ADJUST SHADING	
	FLASH UPGRADE	LOCAL
		REMOTE : USER PROGRAM ,
		EMULATION ,BOOT PROGRAM
	PROGRAM DIAL	
TX CONFIRM	The same as User Mode	
SCHEDULE JOB	The same as User Mode	
PHONE BOOK	The same as User Mode	
SYSTEM LIST	USER MODE	
TX JOURNAL	The same as User Mode	
RX JOURNAL	The same as User Mode	

Function	Item	Content
REPORTS	MSG. CONFIRM	
	SCHEDULE JOB	
	PHONE BOOK	
	SYSTEM DATA	
	TRANSMISSION	
	RECEPTION	
	HELP LIST	
	PROTOCOL	
	ERROR CODE	

4-4-2-2 SCX-5115(SETUP : #, 1, 9, 3, 4)

Function	Item	Content
SYSTEM DATA	CASSETTE PAPER	LETTER / A4 / LEGAL
	BYPASS PAPER	LETTER / A4 / LEGAL
	POWER SAVE	ON / OFF
	SELECT LANGUAGE	ENG/GER/FRE/ITA/SPA/POR/DUT
	USB MODE	FAST / SLOW
MAINTENANCE	CLEAN DRUM	
	MODEM TEST	
	NEW DRUM	
	SWITCH TEST	
	SRAM TEST	
	DRAM TEST	
	ROM TEST	FLASH / ENGINE
	PATTERN TEST	PATTERN1-7, QAPATTERN1-4 , ALL
	CLEAR COUNT	PASSWORD
		CRU PRINTS COUNT
		FLT SCAN COUNT
		ADF SCAN COUNT
		USED DRUM COUNT
		USED TONER COUNT
		TOTAL PAGE COUNT
	ADJUST SHADING	
	FLASH UPGRADE	
REPORTS	SYSTEM DATA	
	HELP LIST	HELP LIST
	ERROR CODE	

4-4-3 SYSTEM DATA

DIALING MODE

Select the dialing mode according to the user's line status.
TONE: Electrical type of dial
PULSE: Mechanical type of dial

SILENCE TIME

In ANS/FAX mode, after a call is picked up by the answering machine, the machine monitors the line. If a period of silence is detected on the line at any time, the call will be treated as a fax message and the machine begins receiving.
Silence detection time is selectable between limited (about 12 seconds) and unlimited time.
When '12 sec' is selected, the machine switches to receiving mode as soon as it detects a period of silence.
When 'unlimited'is selected, the machine waits until the answering operation is concluded even though a period of silence is detected. After the answering operation is concluded, the machine switches to receiving mode.

SEND FAX LEVEL

You can set the level of the transmission signal. Typically, the Tx level should be under -12 dBm.

Caution: The Send Fax Level is set at the best condition in the shipment from factory. Never change settings arbitrarily.

ERROR RATE

Tou can set the Error Rate between 5% and 10%. During operation the set monitors the rror rate.
When the rror rate approaches the preset value the machine automatically steps down the baude to 2400bps to ensure that the selected error rate is not exceeded.

MODEM SPEED

You can set the maximum modem speed. It is better left set 33.6Kbps (the default setting).
During call setup the baud rate is automatically adjusted to suite the slowest device. Only adjust this where the local line conditions are extremely poor.

4-4-4 MEMORY CLEAR

CLEAR ALL MEMORY

This function resets the system to its original factory settings. All settings entered in User Mode and Tech Mode are reset. This includes any User Phone Book entries, jobs stored in memory or received documents that have not been printed. If possible use the Control Panel software to download customer settings and phone book settings before carrying out a full reset.
When diagnosing or testing a faulty unit this function is often useful. Be aware that all error reports are also cleared.

< Method >

1. Select the [MEMORY CLEAR] in TECH MODE.
2. Push the ENTER button.
3. Select your country.
4. Push the ENTER button and all memory will be cleared.

NOTICE : Always perform a memory clear after replacing the main board or updating the firmware. Otherwise, the system may not operate properly.

4-4-5 MAINTENANCE

CLEAN DRUM

Use this feature to remove toner particles remaining in the OPC drum unit.
Use this feature when print quality falls or when marks or specks appear on the printout.
You should perform this feature several times until a clean printout appears.
The machine automatically pulls in a sheet of paper and prints out. Excess toner particles on the OPC drum surface are fixed to the paper.

FLASH UPGRADE

This function is used to update the system Firmware. There are 2 methods Local and Remote.
More information can be found in the firmware upgrade section.

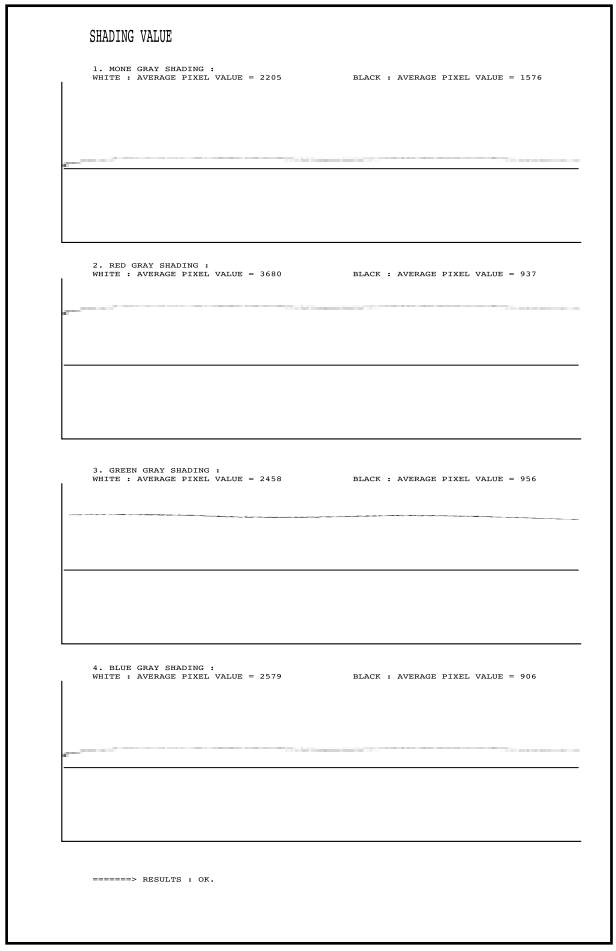
ADJUST SHADING

This option is used to test and check the functionality of the CCD (Charge Coupled Device). Use this when poor quality scanning or copying is reported.

< Method >

1. Select the [ADJUST SHADING] in TECH MODE.
2. Push the SET UP button. The unit scans a “white image” using the ‘white bar’
3. After the scan, CCD SHADING PROFILE similar to that shown will be printed out.
4. If the printed image is different to the image, if the lines are significantly lower or higher, or if there are high or low spots in the chart then the CCD is defective.

NOTICE : When you test the CCD, make sure that the cover is closed.”


SHADING VALUE
1. MONE GRAY SHADING :
WHITE : AVERAGE PIXEL VALUE = 2205
BLACK : AVERAGE PIXEL VALUE = 1576
2. RED GRAY SHADING :
WHITE : AVERAGE PIXEL VALUE = 3680
BLACK : AVERAGE PIXEL VALUE = 937
3. GREEN GRAY SHADING :
WHITE : AVERAGE PIXEL VALUE = 2458
BLACK : AVERAGE PIXEL VALUE = 956
4. BLUE GRAY SHADING :
WHITE : AVERAGE PIXEL VALUE = 2579
BLACK : AVERAGE PIXEL VALUE = 906
=======> RESULTS : OK.

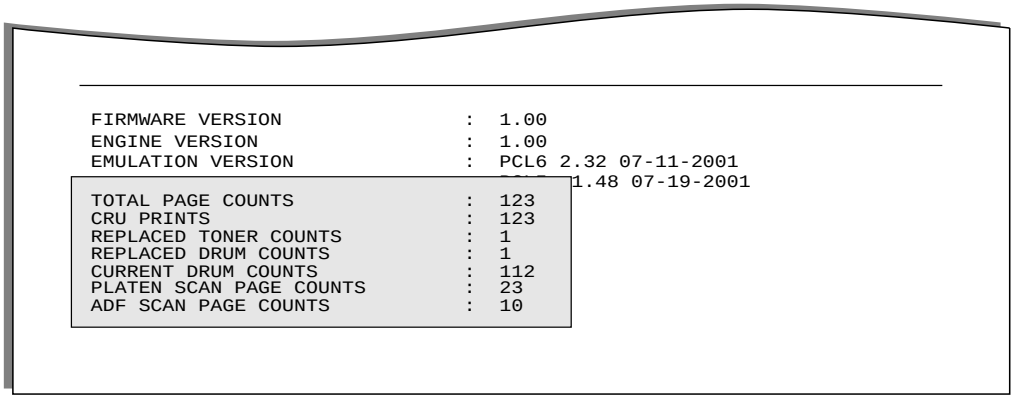
ANSWER ON CNG

The function is to control the CNG TONE recognition times for entering receiving mode from the AUTO MODE or ANS/FAX MODE.

CLEAR COUNT

This function erases the counters stored in system memory. These are shown in the highlighted area in the Sytem data List shown below (printed in TECH MODE)

Note the Current Drum Page Count cannot be erased. This is cleared using the NEW DRUM function (USER MODE ⇒ MAINTENANCE ⇒ NEW DRUM)"


FIRMWARE VERSION : 1.00
ENGINE VERSION : 1.00
EMULATION VERSION : PCL6 2.32 07-11-2001
1.48 07-19-2001
TOTAL PAGE COUNTS : 123
CRU PRINTS : 123
REPLACED TONER COUNTS : 1
REPLACED DRUM COUNTS : 1
CURRENT DRUM COUNTS : 112
PLATEN SCAN PAGE COUNTS : 23
ADF SCAN PAGE COUNTS : 10

< SYSTEM DATA LIST >

PATTERN TEST

Using this pattern printout, you can check if the printer mechanism is functioning properly.
It is used in the production process and is not intended for Service use."

ROM TEST

Use this feature to test the machine'S ROM. The result and the software version appear in the LCD display.

- FLASH VER : 1.00 V
- ENGINE VER :1.00V

DRAM TEST

Use this feature to test the machine's DRAM. The result appears in the LCD display.
If all memory is working normally, the LCD shows << O K >>

SRAM TEST

Use this feature to test the machine's SRAM. The result appears in the LCD display.
If all memory is working normally, the LCD shows << O K >>

MODEM TEST

Use this feature to hear various transmission signals to the telephone line from the modem and to check the modem. If no transmission signal sound is heard the modem may be faulty."

SWITCH TEST

Use this feature to test all keys on the operation control panel. The result is displayed on the LCD window each time you press a key.

NOTIFY TONER LOW

With this feature enabled, when the toner becomes low, the toner low information will be sent to a specified contact point, for example, the service company. After you access this menu, select ON, and when the LCD-prompts, enter the name and the number of the contact point, the customer's fax number, the model name, and the serial number.”

PROGRAM DIAL

This is a special feature which allows the TECH USER to set parameters for a specific dialed location (which must be in the one touch or speed dial phone books). Parameters can be set to override the normal; default settings to enable the machine to cope with calls to destinations with known line problems”

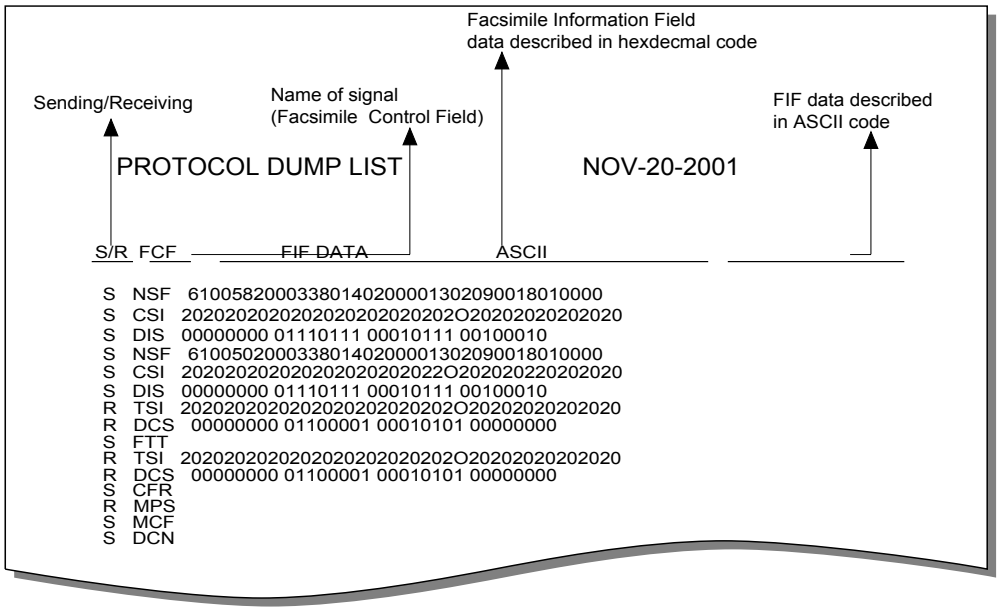
4-4-6 REPORT/HELP

MSG. CONFIRM

It shows the result of the last send operation.

PROTOCOL LIST

This list shows the sequence of the CCITT group 3 T.30 protocol during the most recent sending or receiving operation. Use this list to check for send and receive errors. If a communication error occurs while the machine is in TECH mode, the protocol list will print automatically.



HELP

It shows a brief description on the machine's basic functions and commands.
Use it as a quick reference guide

RECEPTION

This journal shows information relating to document reception, the time and dates of up to 40 of the most recent documents received are stored.

TRANSMISSION

This journal shows information relating to document transmission, the time and dates of up to 40 of the most recent documents transmitted are stored.

SYSTEM DATA

This list provides a list of the user system data settings and tech mode settings.

PHONEBOOK

It lists all telephone numbers that have been stored in the machine.

SCHEDULE JOB

This list shows information relating to the documents currently stored for delayed transmission. It provides the operation number, starting time, type of operation, etc.

ERROR CODE

This list shows a list of errors that have occurred since the last memory clear.

4-4-7 Firmware Upgrade

This function is used to update the machines Firmwar, there are two Upgrade methods - local and remote.

4-4-7-1 Local Machine

RCP(Remote Control Panel) mode

This method is used with the machine connected using either a Parallel Port or USB Port to a PC and uses the RCP (Remote Control Panel) software to upgrade the Firmware.

< Method >

How to Update Firmware using RCP

1. Connect PC and Printer with Parallel Cable or USB Cable.
2. Execute RCP and select Firmware Update. Current Firmware version and Emulation Version are displayed on Current version window.
3. The Firmware file must be stored on the PC, in a path close to the root of C:, ie C:\TEMP. Search for the firmware file to use to update the machine by using the Browse Icon.
4. Click the Update icon, the firmware file is transmitted to the Printer automatically and the printer is initialized when the update is finished.
5. Click the Refresh icon and check that the version number displayed matches the new firmware just loaded."

DOS Command mode

This method is just for Parallel Port. Connect to PC with Parallel cable and enter DOS Command to upgrade the Firmware.

< Method >

a). You will need the following files:- **down.bat, down_com.bin, fprt.exe,** and "**Rom File**": this is the firmware file to be loaded into the printer. Save the files in the same folder, close to the root of C;, e.g. C\TEMP

b). At a DOS prompt, input one of the commands shown below and press the enter key. The file will then be sent automatically to the printer.

c) There are two commands use the correct one depending on the printer status.

* when the printer is in the user mode and is in the normal ready condition: **down "rom file"**
* When the product is been placed in the upgrade mode (TECH MODE → MAINTENANCE → FLASH UPGRADE → LOCAL) **fprt "rom file"**

d) Do not turn off the power while the upgrade is in process."

4-4-7-2 Remote FAX

This function uses one fax machine already loaded with the latest firmware to upgrade one or more other remote machines of the same type using the telephone network.

< Method >

1. Operate a fax with the latest firmware to prepare it to send the upgrade. (TECH MODE MAINTENANCE FLASH UPGRADE REMOTE)
2. Input the telephone number of the fax machine to be upgraded. (Several faxes can be upgrade at the same time. In this case, enter the telephone number for each machine.)
3. Then press the enter button, this will send the firmware file by calling to the each of the selected fax machines in turn. (Around 10~15 minutes is needed to send the file to each machine.)

< Caution >

1. The sending and receiving fax machines must be the same model.
2. A sending fax must be set up as ECM mode, and the receiving machine memory must be set up as 100%. If not the upgrade will fail."

4-4-8 Identify Sale Date(Only SCX-5315F)

This function confirms the date that the consumer first uses the product. The date stored is the date of the first scan or first print whichever operation the user carries out first.
This information is retained even after a memory delete (Clear All Memory).

< Method >

Press MENU, #, 1, 9, 3, # in sequence. The Firmware version is displayed on the LCD.

Press 1(in the number keypad) : The LCD display shows "Updated date"
Press 2(in the number keypad) : The LCD display shows "Product first use date"

4-5 ENGINE TEST MODE

The Engine Tests Mode provides useful test functions for checking the status of the print engine.
It can test many of the separate sections of the print engine and displays the result of the test on the LCD.
These tests are classified in 6 groups (0~5), and the functions of these tests are shown below.

4-5-1 To enter the Engine Test Mode

Press **MENU, #, 1, 9, 3, 1** in sequence, and the LCD briefly displays 'Engine Test Mode', the machine has entered service (tech) mode.

4-5-2 Diagnostic

No.	Sub No.	Engine test	Remark
0	1	Motor Test	1: On, 2: Off
	2	PTL Test	1: On, 2: Off
	3	Fan Test	1: On, 2: Off
	4	Fuser Test	1: On, 2: Off If its temperature is lower than the Standby (160˚C), the fuser is on, but if it is higher than the Standby, the fuser is off.
1	1	LSU Motor Test	1: On, 2: Off
	2	LSU Hsync Test	1: On, 2: Off
	3	LD On Test	1: On, 2: Off
	4	LSU Operation	1: On, 2: Off
2	1	Feed Sensor Test	Sensor On : FEED SENSOR ON Display
			Sensor Off : FEED SENSOR OFF Display
	2	Exit Sensor Test	Sensor On : EXIT SENSOR ON Display
			Sensor Off : EXIT SENSOR OFF Display
	3	Cover Sensor Test	Sensor On : COVER SENSOR ON Display
			Sensor Off : COVER SENSOR OFF Display
	4	1'st Empty Test	Sensor On : 1'st PAPER Empty Display
			Sensor Off : 1'st PAPER No Empty Display
	5	MP Empty Sensor Test	Sensor On : MP PAPER Empty Display
			Sensor Off : MP PAPER No Empty Display
	6	BIN FULL Sensor Test	Sensor On : BIN FULL SEN ON Display
			Sensor Off : BIN FULL SEN OFF Display
3	1	1'st CAST Solenoid Test	1: On, 2: Off
	2	MP Solenoid Test	1: On, 2: Off
	3	Duplex Solenoid Test	1: On, 2: Off
4	1	MHV Test	1: On, 2: Off (-1450v)
	2	DevBias Test	1: On, 2: Off (-450v)
	3	THV EN/NEG Test	1: On, 2: Off
	4	THV Test	1: On, 2: Off (1300v)
	5	THV Trigger Test	1: On, 2: Off
5	1	CRU Error Check	1: Check, 2: Next
	2	New OPC Check	1: Check, 2: Next
6	1	All Function Test	For SMD Test, Push up key : Next function All Function : No.0~4

4-5-3 ENGINE PRINT

When the function is enabled a group of parameters are printed at the bottom of each page which define the print engine condition. It is a manufacturing test feature not intended for service use.
This setting remains enabled even when you exit from Engine Mode. Remember to turn it off.

4-6 Troubleshooting

4-6-1 Scanner

4-6-1-1 COPY

PROBLEM	ITEMS TO BE CHECKED.	HOW TO SOLVE
White copy	• Ensure the Scanner cover is closed.	• Room lighting can penetrate thin paper causing quality problems
	• Check shading profile	• Carry out the “Adjust Shading” procedure in Tech mode
Black copy	• Check the CCD problem in Main PBA.	• Check the CCD harness contact.
	• Check shading profile.	• Remake shading profile in the tech mode.
Defective image quality	• Check shading profile.	• Carry out the “Adjust Shading” procedure in Tech mode
	• Check the original is laying flat on the scanner glass.	• A gap above 0.5mm can cause a blurred image.
	• Check printing quality.	• See “Print” troubleshooting.
Abnormal noise	• Check the Scanner drive mechanism.	• Check scanner carriage, motor, gearbox, belt and belt tension spring
	• Check the Motor Driver chip on the driver PBA.	• If any driver is defective, replace it. - U2-4, 11, 18, 25 signals swing between OV and 24V when operating.

4-6-1-2 PC-Scan

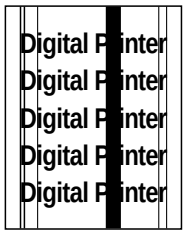
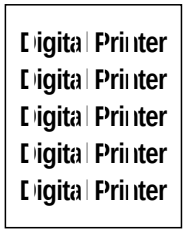
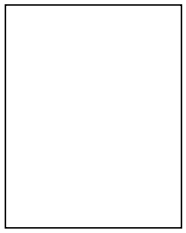
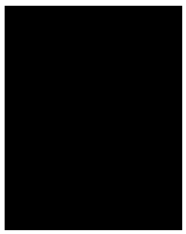
PROBLEM	ITEMS TO BE CHECKED.	HOW TO SOLVE
Scanning Error	• Check the printer cable is correctly installed.	• Use standard IEEE1284 cable.
	• Check that the TWAIN driver is installed.	• Remove any other scanner driver. • Reboot after reinstallation of the TWAIN driver.
	• Check the printer port (Parallel) BIOS settings.	• Check the parallel-port-related items in the CMOS Setup. As a printer port, ensure ECP is selected.
	• Check harness contact.	• Check CN12 contact in Main PBA
	• Check the IEEE1284 signal levels.	• If any signal level is defective, replace driver PBA. - U33-26, 27, 28, 43, 44, 45, 46, 47 on Main PBA are 0.8V to 2.4V TTL signal. • Otherwise, replace Main PBA.
	• Check the USB signal level.	• If USB signal level is defective, replace Main PBA.
Defective image Quality	• Check shading profile.	• Remake shading profile in the tech mode.
	• Check the gap between original and scanner glass.	• The gap above 0.5mm can cause a blurred image.
Abnormal noise	• Check the Scanner Motor and any mechanical disturbance.	• Check the right position of the Scanner Motor, and check the any mechanical disturbance in the CCD carriaging part.
	• Check the motor driver in Driver PBA.	• If any driver is defective, replace it. - U2-4, 11, 18, 25 = 0V to 24V swing signal when operating.

4-6-2 FAX(only SCX-5315F)

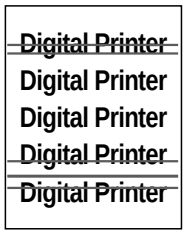
4-6-2-1 FAX/TELEPHONE Precautions

PROBLEM	ITEMS TO BE CHECKED.	HOW TO SOLVE
TEL LINE CANNOT BE ENGAGED (NO DIAL TONE)	• When you press " OHD" key: a) Check line cord connection. b) Check MAIN LIU harness, and CN1 (LIU PBA). c)Check relay operation of LIU PBA : Is the control signal of CN18(main) low?	a) insert it correctly into the connection jack called "line". b) Replace defective parts. c) Replace main PBA IF the control signal of CN18(main) is high. Replace LIU PBA if high but phone line cannot be connected.
Cannot MF dial	• Check CN18 (main PBA), MAIN-LIU harness, and CN1 (LIU PBA)	• Replace defective parts.
MF dial is possible but not DP dial.	• Check DP control signal of CN18-11 of MAIN PBA and the circuit around R15. U6 and Q2 of Liu PBA.	• Replace LIU PBA.
Defective fax transmission	• Check CN18 (main PBA), MAIN LIU harness, and CN1(LIU PBA). • Is the external phone hooked off? • Check 'hook off' : Refer to 'TEL LINE CANNOT BE ENGAGED' above. • Check transmission path : Check output of CN20-3.4 and T2-4(LIU PBA). • Check reception path : Check output CN1-1 (LIU PBA) and input of CN18-1 (main PBA).	• Replace defective parts. • Replace LIU PBA if low. • Refer to 'TEL LINE CANNOT BE ENGAGED' above. • Replace main PBA, if abnormal. • Replace LIU PBA if CN1-1(LIU PBA) is not confirmed. Replace main PBA if CN20-1(MAIN PBA) is not confirmed.
Defective automatic fax reception	• Is the ring checked? Check ring pattern at CN1-9 (LIU PBA). • Refer to 'Defective Transmission.'	• Replace LIU PBA if it cannot be checked. • Refer to 'Defective Transmission'.

4-6-3 Print Quality

Error Status	Check	Solution
Vertical black line and band 	1. Faulty Toner cartridge 2. LSU 3. Bad cleaning blade of drum cartridge.	1. Change Toner cartridge 2. Replace LSU 3. Chang Drum cartridge.
Vertical white line 	1. LSU window contamination 2. Toner cartridge	1. Clean LSU window 2. If not LSU, change Toner cartridge.
No image 	1. OPC is properly grounded? 2. LSU running well? 3. Bias voltage is correct? 4. Toner low? 5. Is there video data from Main PBA	1. Measure the resistance between frame ground and the OPC ground spring attached to the frame. Confirm good ground. If faulty check ground path through the frame . Also check OPC Ground Screw – see page 3-18 2.Adjust LSU or replace it 3. Normal Dev bias = -440V 4. Shake toner cartridge and print. If an image appears toner is empty 5. Print engine test pattern , replace Main PBA
Light image 	1. LSU light power normal? 2. Enough toner? 3. High charger voltage? 4. Lower bias voltage 5. Contamination of high voltage contact. 6. Transfer voltage and roller.	1. Checking LSU light power is difficult. Compare with new one and check. 2. Check toner and developer counter 3~4. Change the HVPS Board. 5. Stray toner can increase contact resistance and cause a bad contact. Clean contaminated area.
Dark image 	1. LSU light power normal? 2. Bias voltage output is high? 3. Video data is always supplied? 4. Bad C/R voltage contact.	1. Checking LSU light power is difficult. Compare with new one and check. 2. Normal Dev bias = -350V 3. Check Video Data signal(CN2). Replace main PBA board. 4. Replace Drum Cartridge or check where is bad point of machine.

Error Status	Check	Solution
Background 	1. High voltage output is normal? 2. C/R of Toner cartridge is contaminated?	1. Change the HVPS Board. 2. Print a number of “Cleaning” sheets – if problem persists change the cartridge..
Ghost 	1. High voltage output. 2. Pre-Transfer Lamp. 3. Bad high voltage contact.	1. Change the HVPS Board. 2. Check PTL lamp comes on –replace if necessary 3. Clean the inside machine or replace toner cartridge.
Stains on back of paper	1. Contamination of transfer roller. 2. Toner debris in paper path 3. Pressure roller contamination	1. Clean the transfer roller with vacuum cleaner. 2. Clean the paper path with a cloth or air duster. 3. Remove fuser and replace it.
Poor Fusing	1. Paper quality and finish? 2. Check fusing temperature. 3. The machine was kept at a low temperature for a long time?	1. Should use recommended paper. 2. Check engine controller board. If you do not have a thermometer, measure the thermistor voltage to CPU, If 2.3V±5% when printing is correct therwise disassemble fthe user and check the thermistor contacts and thermistor. 3. Re-check after allowing the machine to come up to room temperature.
Partial blank image (not periodic)	1. Toner is low? 2. The toner cartridge is out of position?	1. Replace Toner cartridge. 2. Checkand adjust.
Partial blank image (periodic)	1. repatative white or black marks at regular intervals.	Measure the spacing of the marks and compare the spacing to those given in the table below. • Spacing 1 and 2 – Replace the OPC • Spacing 3 and 4 – replace the toner car tridge • Spacing 5 – replace the transfer roller • Spacing 6 and 7 – replace the Fuser.

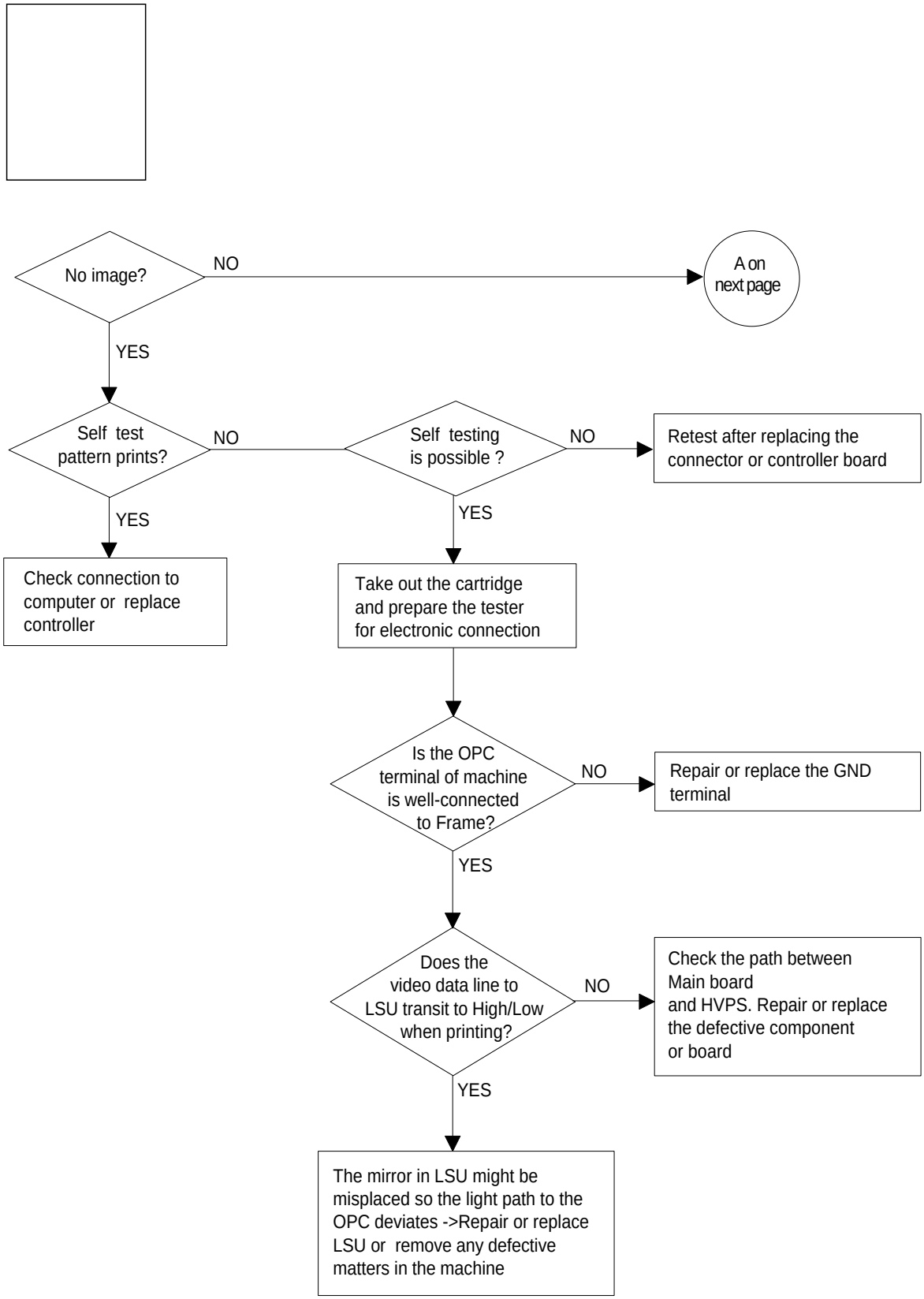
Error Status	Check	Solution
Different image density (left and right)	1. Uneven pressure between Charge roller and OPC Drum 2. Uneven pressure between Dev roller and OPC drum 3. Transfer roller's pressure force uneven at each side	1. Change OPC cartridge 2. Change toner and / or OPC Drum 3. Check left and right transfer roller springs
Horizontal lines or bands 	1. Bad contact on high voltage terminal 2. Contamination of charge roller 3. Contamination of heat roller 4. Malfunction of LSU	1. Clean each contact and check continuity 2. Print several "cleaning sheets" – replace OPC drum if problem persists. 3. Replace fuser unit 4. Check Main PBA., LSU harness and LSU

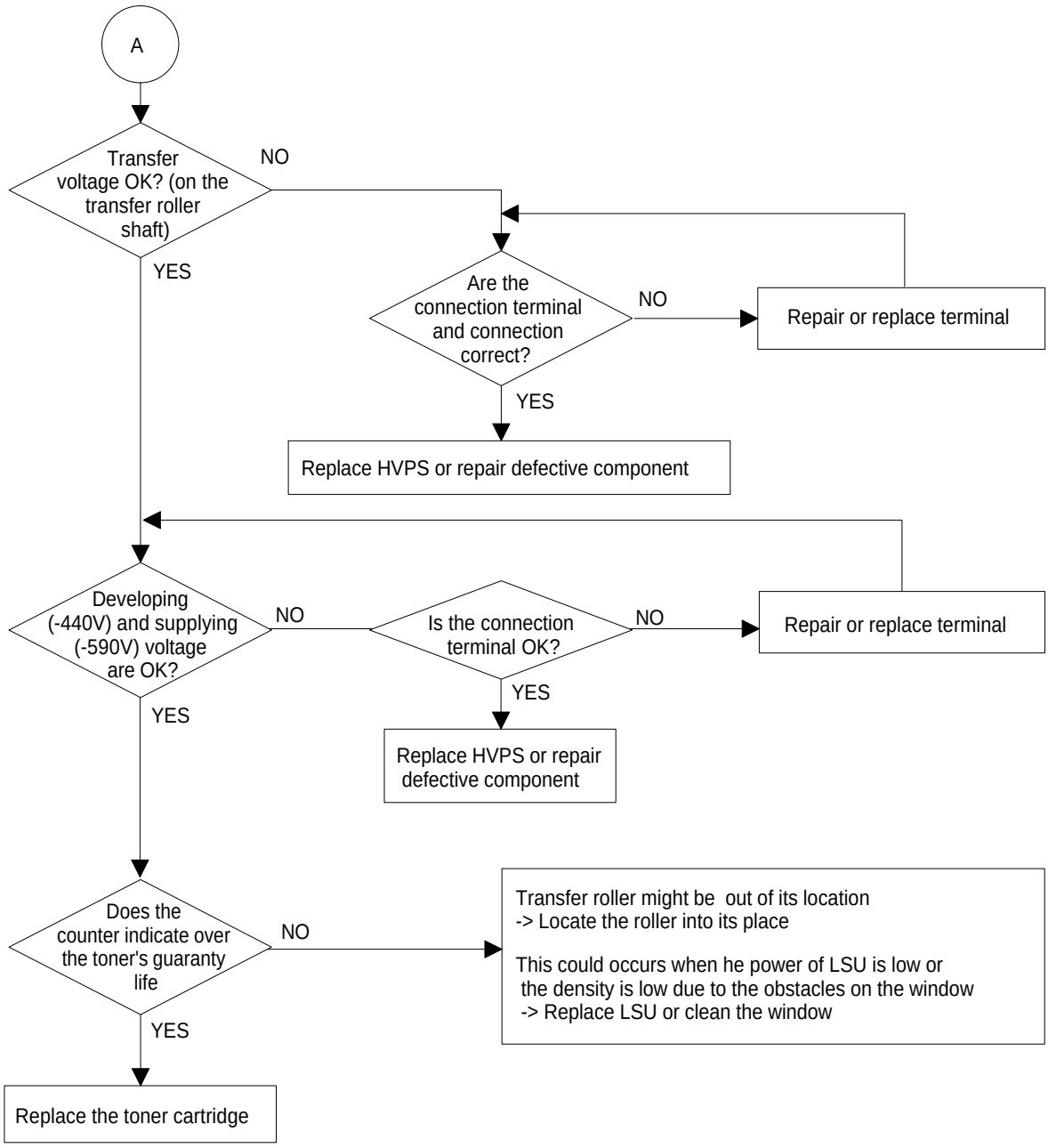
Abnormal Image Printing and Defective Roller

If abnormal image prints periodically, check the parts shown below.

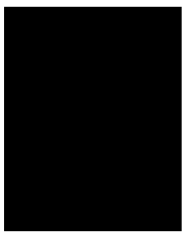
NO	Roller	Abnormal image period	Kind of abnormal image
1	OPC Drum	94.3 mm	White spot. Black spot
2	Charge Roller	37.7 mm	White spot. Black spot
3	Supply Roller	35.8 mm	Horizontal dark band
4	Develope Roller	44.8 mm	Horizontal dark band
5	Transfer Roller	56.6 mm	Contamination on reverse side of paper / transfer fault
6	Heat Roller	82.5 mm	Black spot, White spot
7	Pressure Roller	78.5 mm	Contamination on reverse side of paper

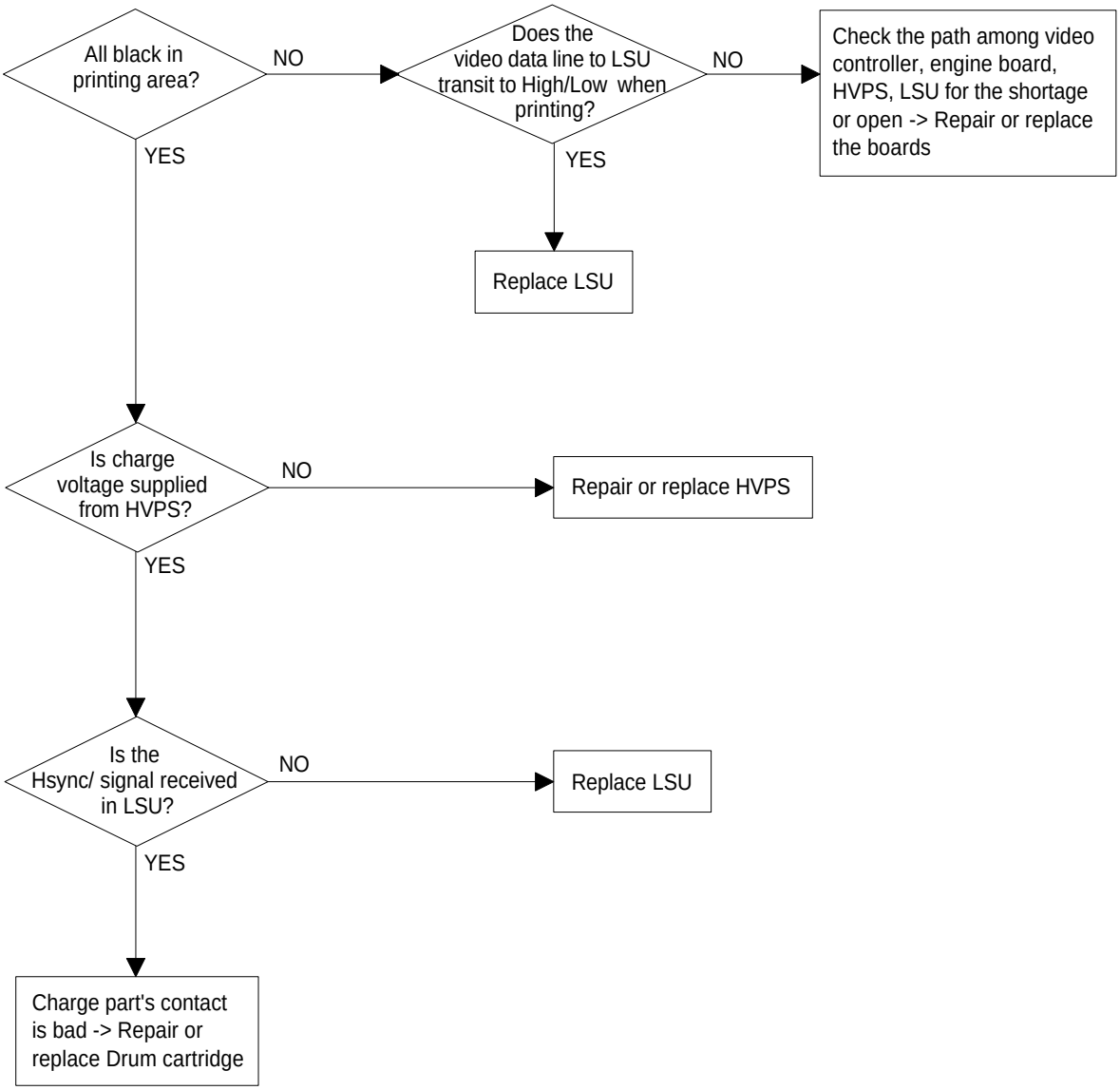
No Image


No image?
NO
A on next page
YES
Self test pattern prints?
NO
Self testing is possible ?
NO
Retest after replacing the connector or controller board
YES
YES
Check connection to computer or replace controller
Take out the cartridge and prepare the tester for electronic connection
Is the OPC terminal of machine is well-connected to Frame?
NO
Repair or replace the GND terminal
YES
Does the video data line to LSU transit to High/Low when printing?
NO
Check the path between Main board and HVPS. Repair or replace the defective component or board
YES
The mirror in LSU might be misplaced so the light path to the OPC deviates ->Repair or replace LSU or remove any defective matters in the machine

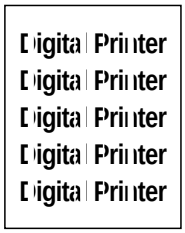

A
Transfer voltage OK? (on the transfer roller shaft)
NO
YES
Are the connection terminal and connection correct?
NO
Repair or replace terminal
YES
Replace HVPS or repair defective component
Developing (-440V) and supplying (-590V) voltage are OK?
NO
Is the connection terminal OK?
NO
Repair or replace terminal
YES
Replace HVPS or repair defective component
YES
Does the counter indicate over the toner's guaranty life
NO
Transfer roller might be out of its location
-> Locate the roller into its place
This could occurs when he power of LSU is low or the density is low due to the obstacles on the window
-> Replace LSU or clean the window
YES
Replace the toner cartridge

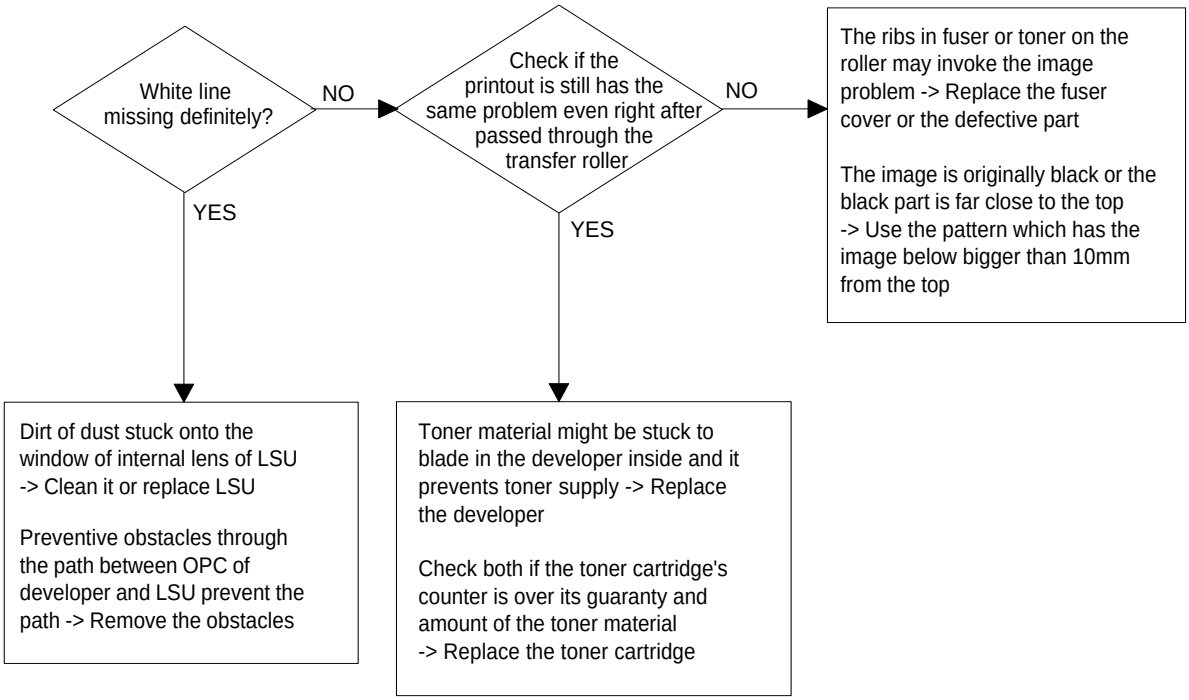
All Black




All black in printing area?
NO
Does the video data line to LSU transit to High/Low when printing?
NO
Check the path among video controller, engine board, HVPS, LSU for the shortage or open -> Repair or replace the boards
YES
YES
Replace LSU
Is charge voltage supplied from HVPS?
NO
Repair or replace HVPS
YES
Is the Hsync/ signal received in LSU?
NO
Replace LSU
YES
Charge part's contact is bad -> Repair or replace Drum cartridge

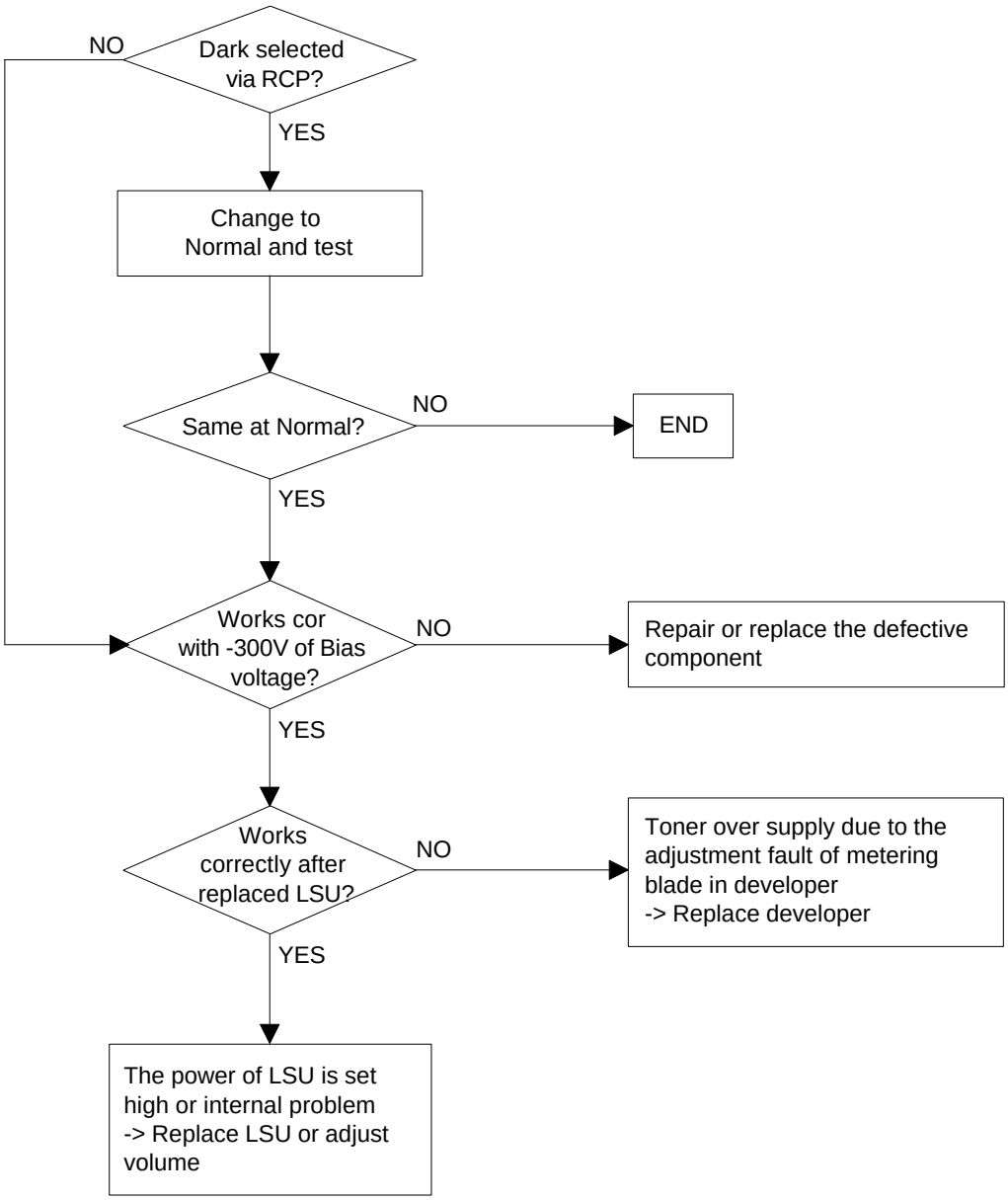
Vertical White Line (Band)




White line missing definitely?
NO
YES
Check if the printout is still has the same problem even right after passed through the transfer roller
NO
YES
The ribs in fuser or toner on the roller may invoke the image problem -> Replace the fuser cover or the defective part
The image is originally black or the black part is far close to the top -> Use the pattern which has the image below bigger than 10mm from the top
Dirt of dust stuck onto the window of internal lens of LSU -> Clean it or replace LSU
Preventive obstacles through the path between OPC of developer and LSU prevent the path -> Remove the obstacles
Toner material might be stuck to blade in the developer inside and it prevents toner supply -> Replace the developer
Check both if the toner cartridge's counter is over its guaranty and amount of the toner material -> Replace the toner cartridge

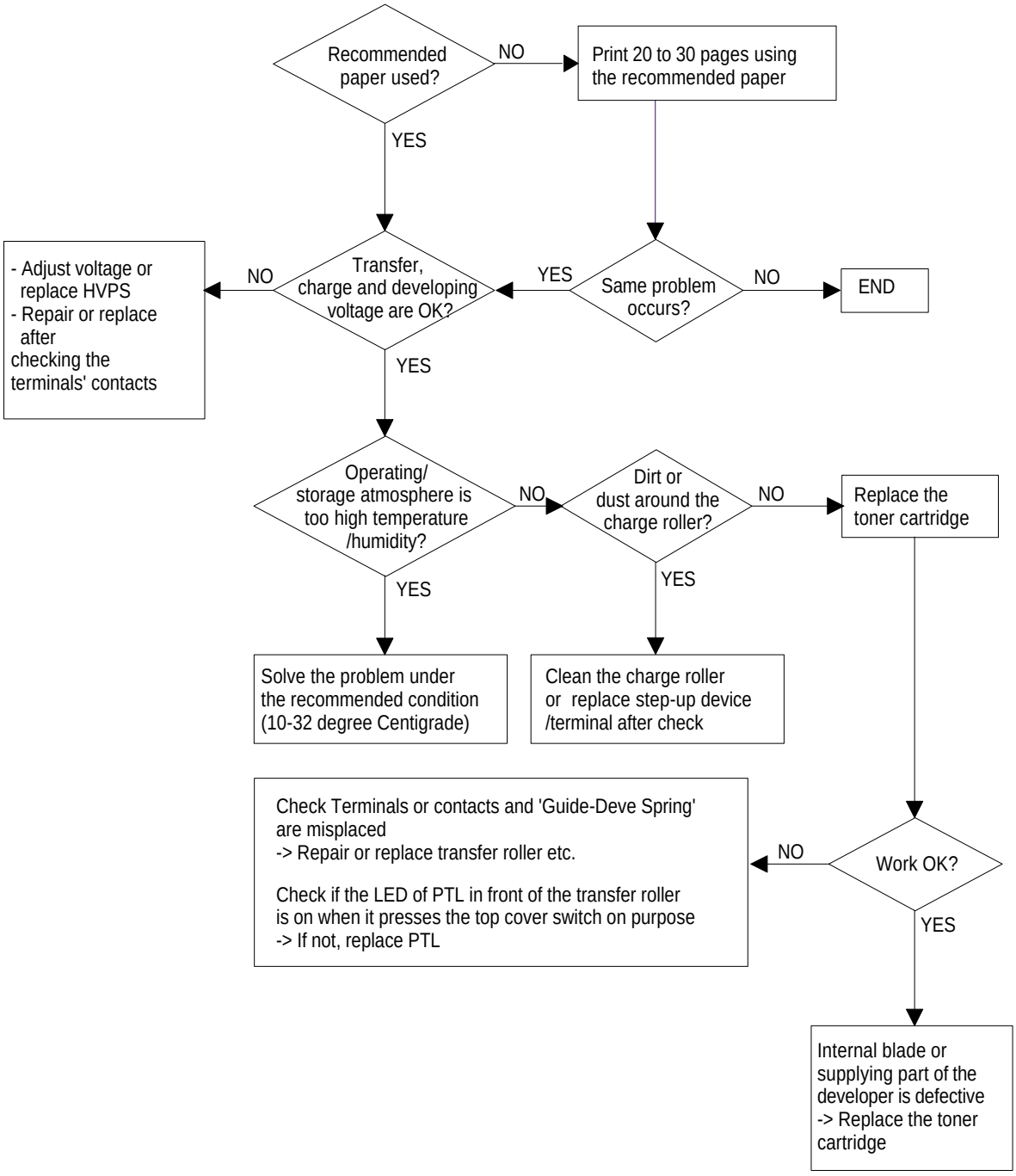
Dark Image

[redacted]



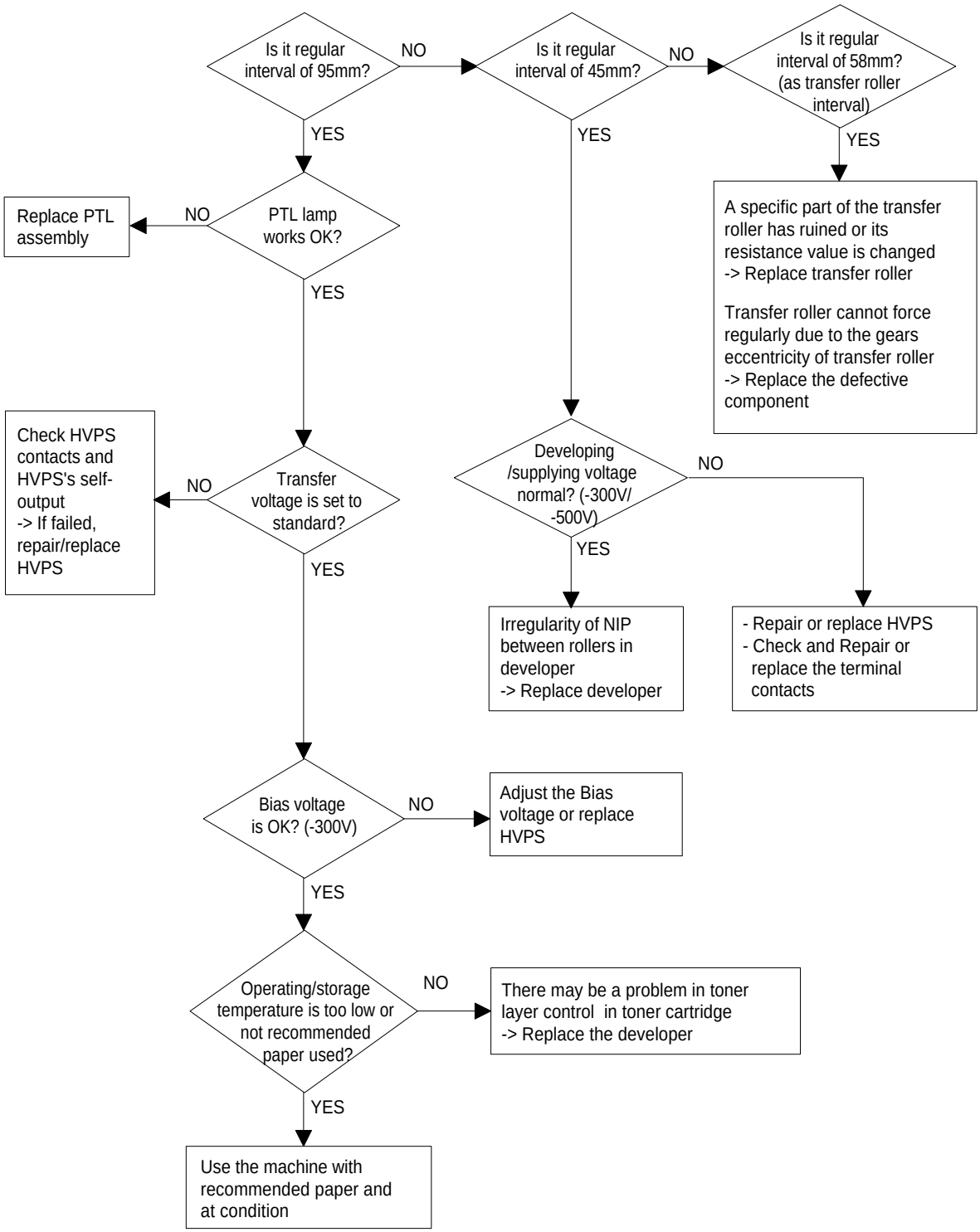
Background

Digital Printer
Digital Printer
Digital Printer
Digital Printer
Digital Printer


Recommended paper used?
NO
Print 20 to 30 pages using the recommended paper
YES
Same problem occurs?
NO
END
YES
Transfer, charge and developing voltage are OK?
NO
- Adjust voltage or replace HVPS
- Repair or replace after checking the terminals' contacts
YES
Operating/ storage atmosphere is too high temperature /humidity?
NO
Dirt or dust around the charge roller?
NO
Replace the toner cartridge
YES
Solve the problem under the recommended condition (10-32 degree Centigrade)
YES
Clean the charge roller or replace step-up device /terminal after check
Work OK?
NO
Check Terminals or contacts and 'Guide-Deve Spring' are misplaced
-> Repair or replace transfer roller etc.
Check if the LED of PTL in front of the transfer roller is on when it presses the top cover switch on purpose
-> If not, replace PTL
YES
Internal blade or supplying part of the developer is defective
-> Replace the toner cartridge

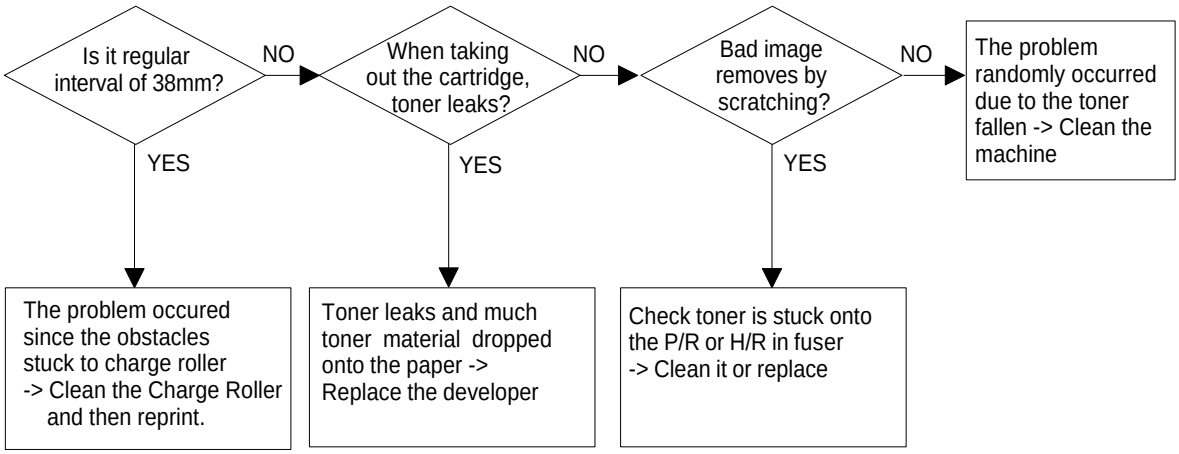
Ghost

Digital Printer
Digital Printer
Digital Printer

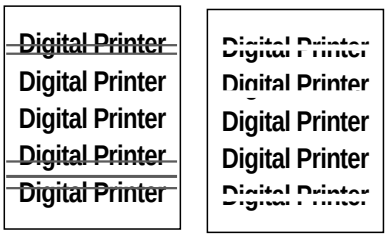

Is it regular interval of 95mm?
NO
Is it regular interval of 45mm?
NO
Is it regular interval of 58mm? (as transfer roller interval)
YES
YES
YES
Replace PTL assembly
NO
PTL lamp works OK?
YES
A specific part of the transfer roller has ruined or its resistance value is changed
-> Replace transfer roller
Transfer roller cannot force regularly due to the gears eccentricity of transfer roller
-> Replace the defective component
Check HVPS contacts and HVPS's self-output
-> If failed, repair/replace HVPS
NO
Transfer voltage is set to standard?
YES
Developing /supplying voltage normal? (-300V/ -500V)
NO
YES
Irregularity of NIP between rollers in developer
-> Replace developer
- Repair or replace HVPS
- Check and Repair or replace the terminal contacts
Bias voltage is OK? (-300V)
NO
Adjust the Bias voltage or replace HVPS
YES
Operating/storage temperature is too low or not recommended paper used?
NO
There may be a problem in toner layer control in toner cartridge
-> Replace the developer
YES
Use the machine with recommended paper and at condition

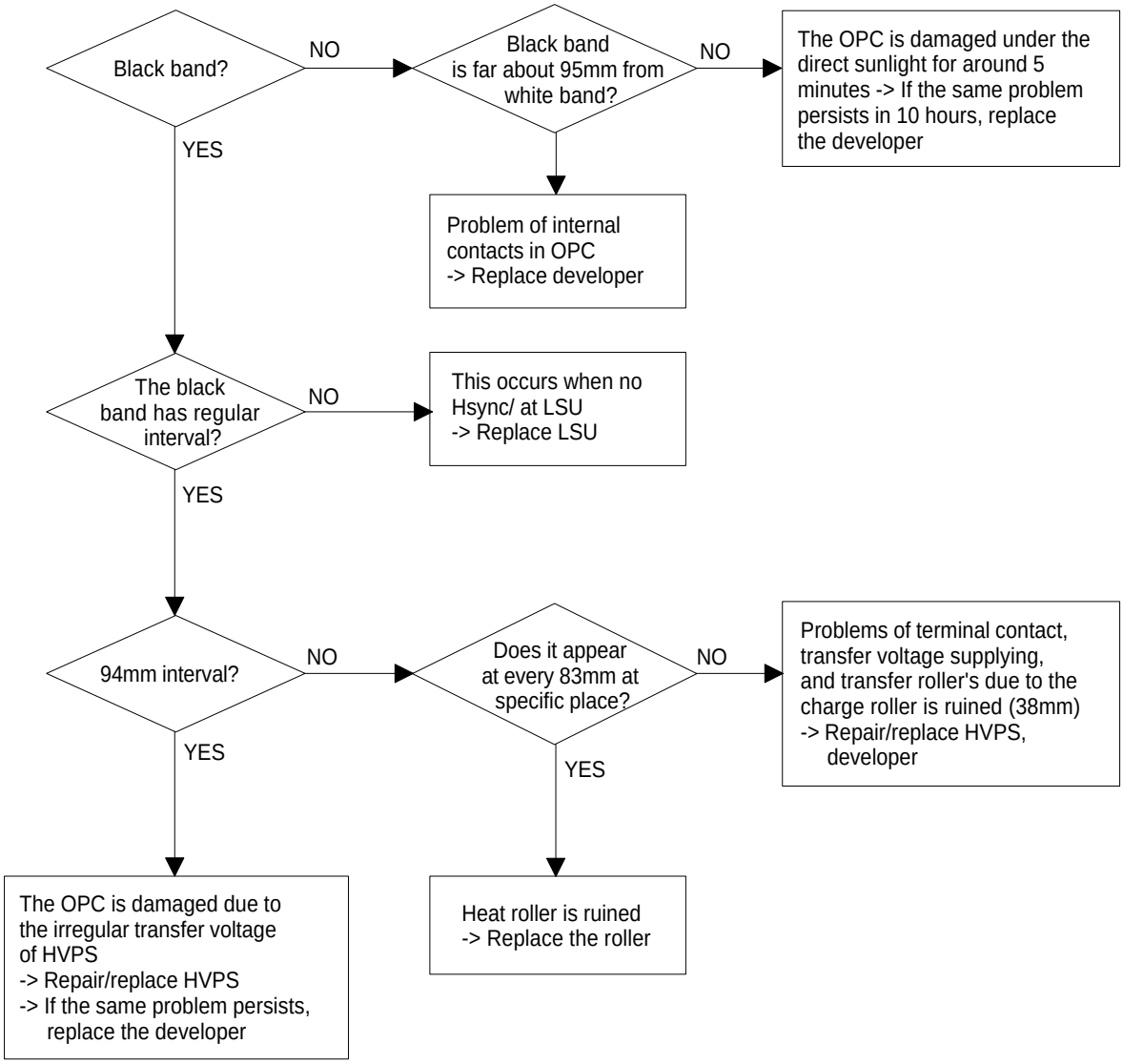
Black Spot

Digital Printer
Digital Printer
Digital Printer
Digital Printer
Digital Printer


Is it regular interval of 38mm?
NO
When taking out the cartridge, toner leaks?
NO
Bad image removes by scratching?
NO
The problem randomly occurred due to the toner fallen -> Clean the machine
YES
YES
YES
The problem occured since the obstacles stuck to charge roller -> Clean the Charge Roller and then reprint.
Toner leaks and much toner material dropped onto the paper -> Replace the developer
Check toner is stuck onto the P/R or H/R in fuser -> Clean it or replace

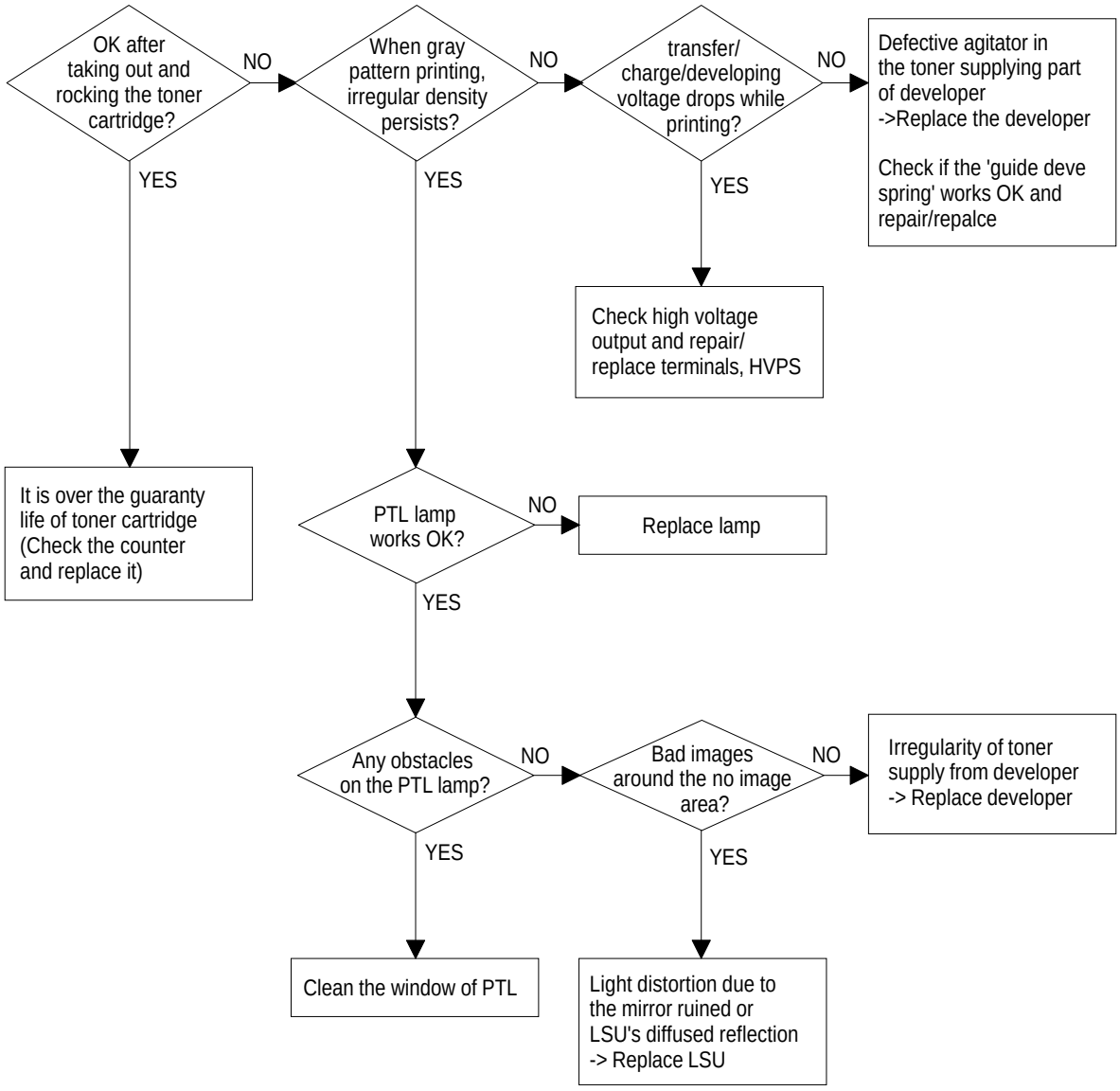
Horizontal Band



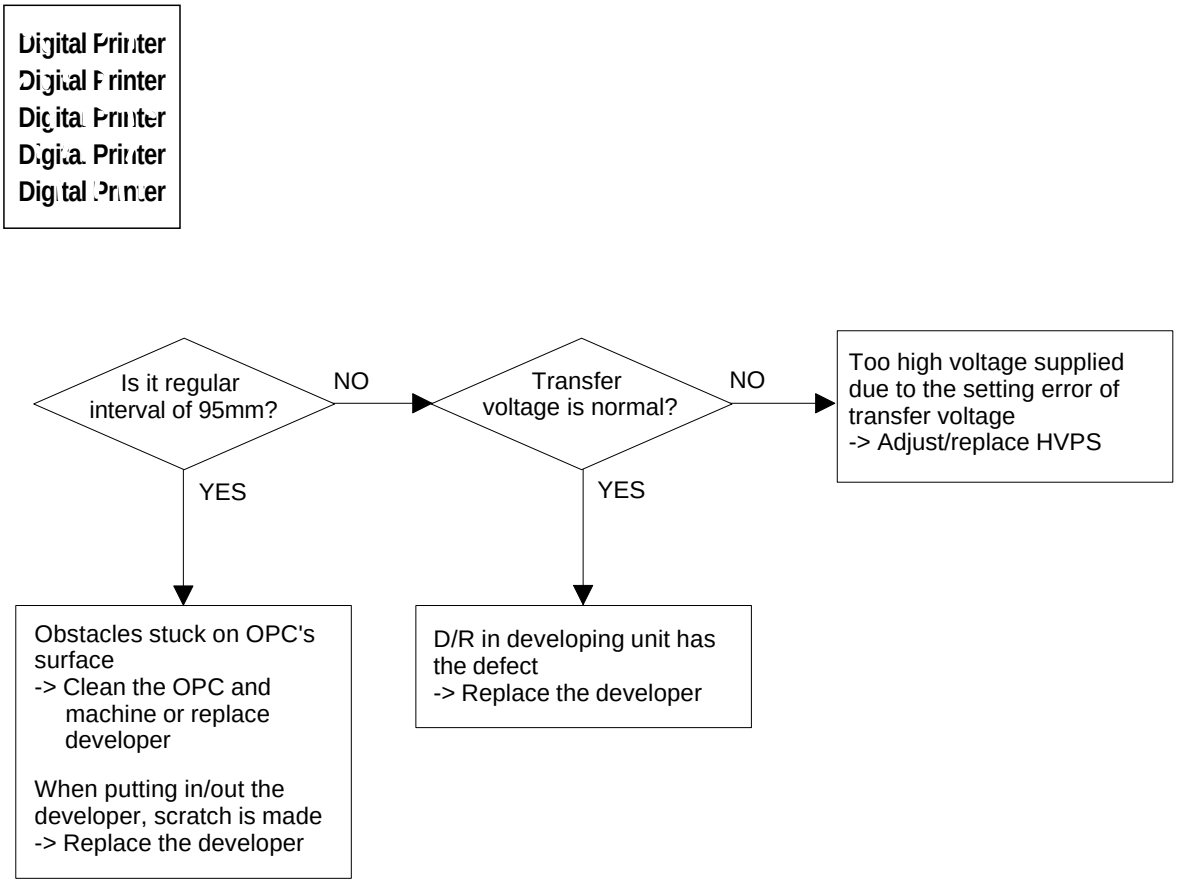

Black band?
NO
Black band is far about 95mm from white band?
NO
The OPC is damaged under the direct sunlight for around 5 minutes -> If the same problem persists in 10 hours, replace the developer
YES
Problem of internal contacts in OPC -> Replace developer
The black band has regular interval?
NO
This occurs when no Hsync/ at LSU -> Replace LSU
YES
94mm interval?
NO
Does it appear at every 83mm at specific place?
NO
Problems of terminal contact, transfer voltage supplying, and transfer roller's due to the charge roller is ruined (38mm) -> Repair/replace HVPS, developer
YES
YES
The OPC is damaged due to the irregular transfer voltage of HVPS -> Repair/replace HVPS -> If the same problem persists, replace the developer
Heat roller is ruined -> Replace the roller

Irregular Density

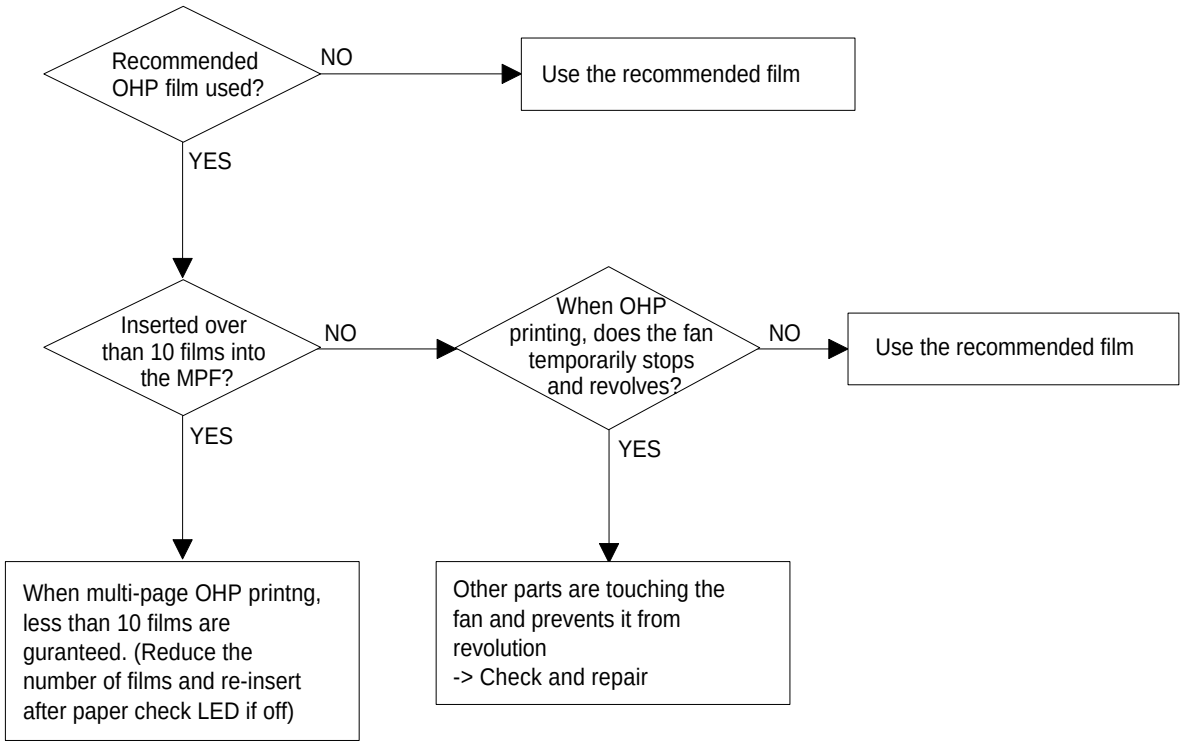
Digital Printer
Digital Printer
Digital Printer
Digital Printer
Digital Printer


OK after taking out and rocking the toner cartridge?
NO
When gray pattern printing, irregular density persists?
NO
transfer/ charge/developing voltage drops while printing?
NO
Defective agitator in the toner supplying part of developer
->Replace the developer
Check if the 'guide deve spring' works OK and repair/repalce
YES
YES
YES
Check high voltage output and repair/ replace terminals, HVPS
It is over the guaranty life of toner cartridge (Check the counter and replace it)
PTL lamp works OK?
NO
Replace lamp
YES
Any obstacles on the PTL lamp?
NO
Bad images around the no image area?
NO
Irregularity of toner supply from developer
-> Replace developer
YES
YES
Clean the window of PTL
Light distortion due to the mirror ruined or LSU's diffused reflection
-> Replace LSU

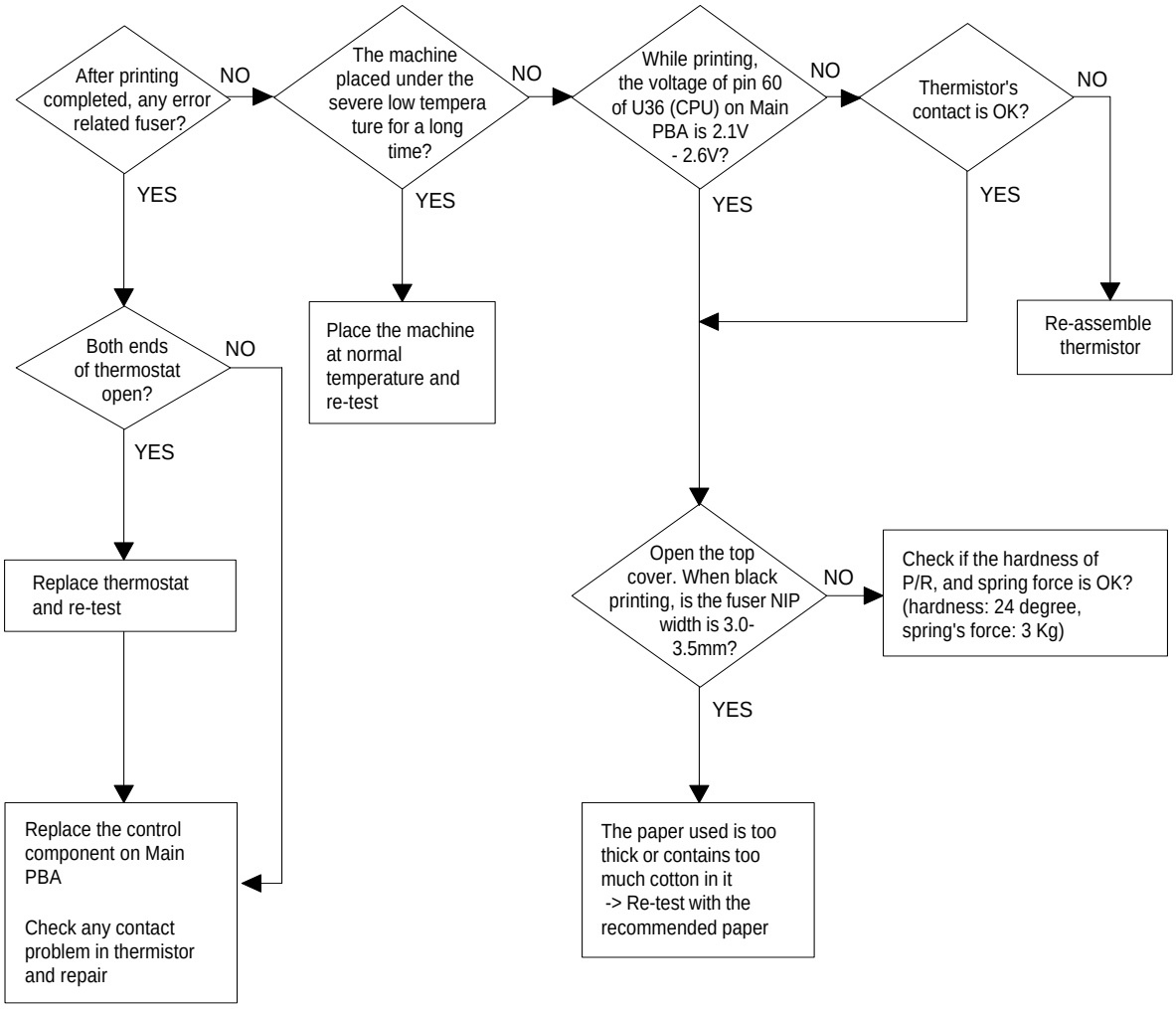
White Spot


Digital Printer
Digital Printer
Digital Printer
Digital Printer
Digital Printer
Is it regular interval of 95mm?
NO
Transfer voltage is normal?
NO
Too high voltage supplied due to the setting error of transfer voltage
-> Adjust/replace HVPS
YES
YES
Obstacles stuck on OPC's surface
-> Clean the OPC and machine or replace developer
When putting in/out the developer, scratch is made
-> Replace the developer
D/R in developing unit has the defect
-> Replace the developer

Trembling at the End When OHP Printing


Recommended OHP film used?
NO
Use the recommended film
YES
Inserted over than 10 films into the MPF?
NO
When OHP printing, does the fan temporarily stops and revolves?
NO
Use the recommended film
YES
YES
When multi-page OHP printng, less than 10 films are guranteed. (Reduce the number of films and re-insert after paper check LED if off)
Other parts are touching the fan and prevents it from revolution
-> Check and repair

Poor Fusing Grade

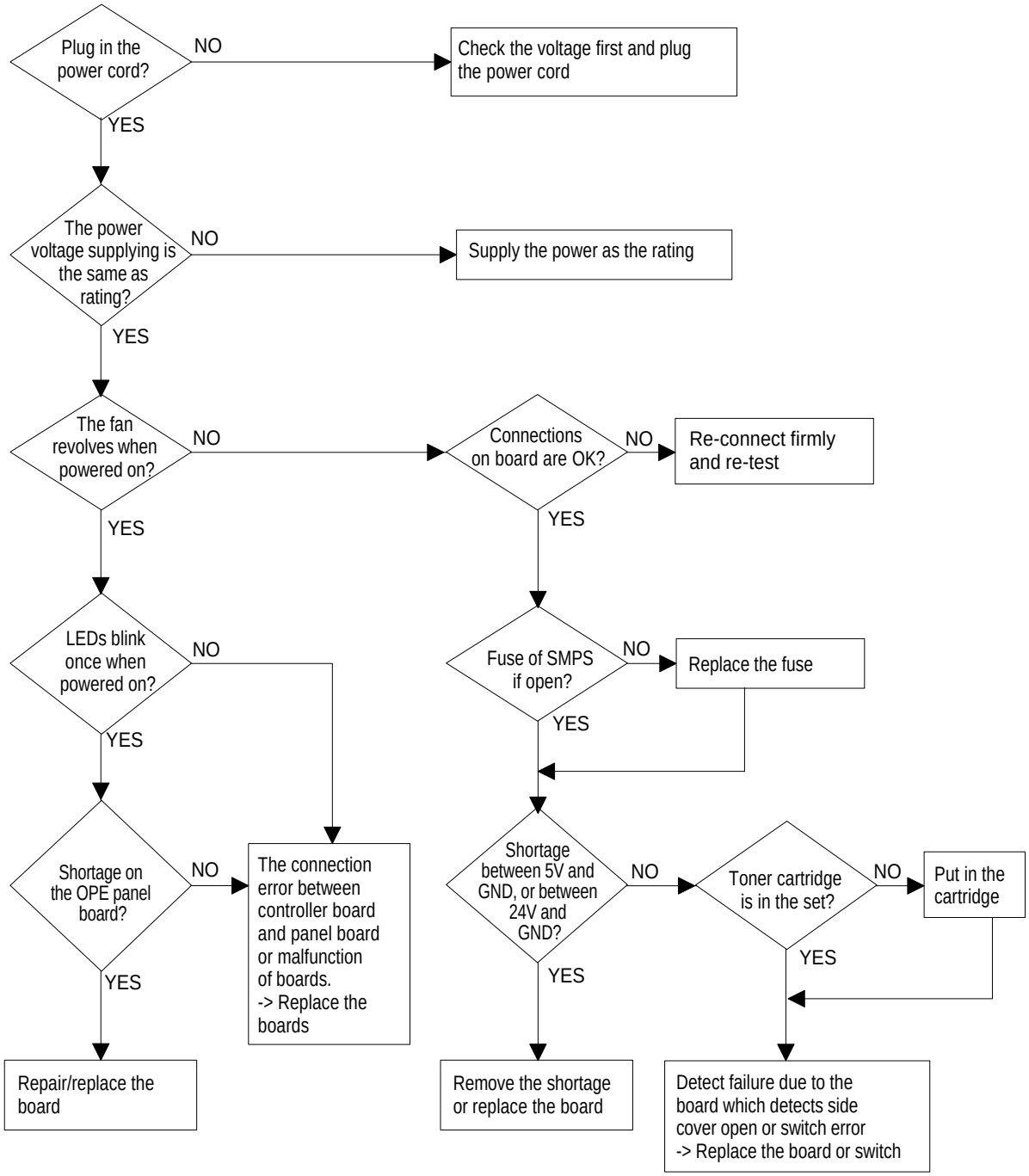

After printing completed, any error related fuser?
NO
YES
The machine placed under the severe low tempera ture for a long time?
NO
YES
While printing, the voltage of pin 60 of U36 (CPU) on Main PBA is 2.1V - 2.6V?
NO
YES
Thermistor's contact is OK?
NO
YES
Re-assemble thermistor
Place the machine at normal temperature and re-test
Both ends of thermostat open?
NO
YES
Replace thermostat and re-test
Replace the control component on Main PBA
Check any contact problem in thermistor and repair
Open the top cover. When black printing, is the fuser NIP width is 3.0-3.5mm?
NO
YES
Check if the hardness of P/R, and spring force is OK? (hardness: 24 degree, spring's force: 3 Kg)
The paper used is too thick or contains too much cotton in it
-> Re-test with the recommended paper

4-6-4 Malfunction

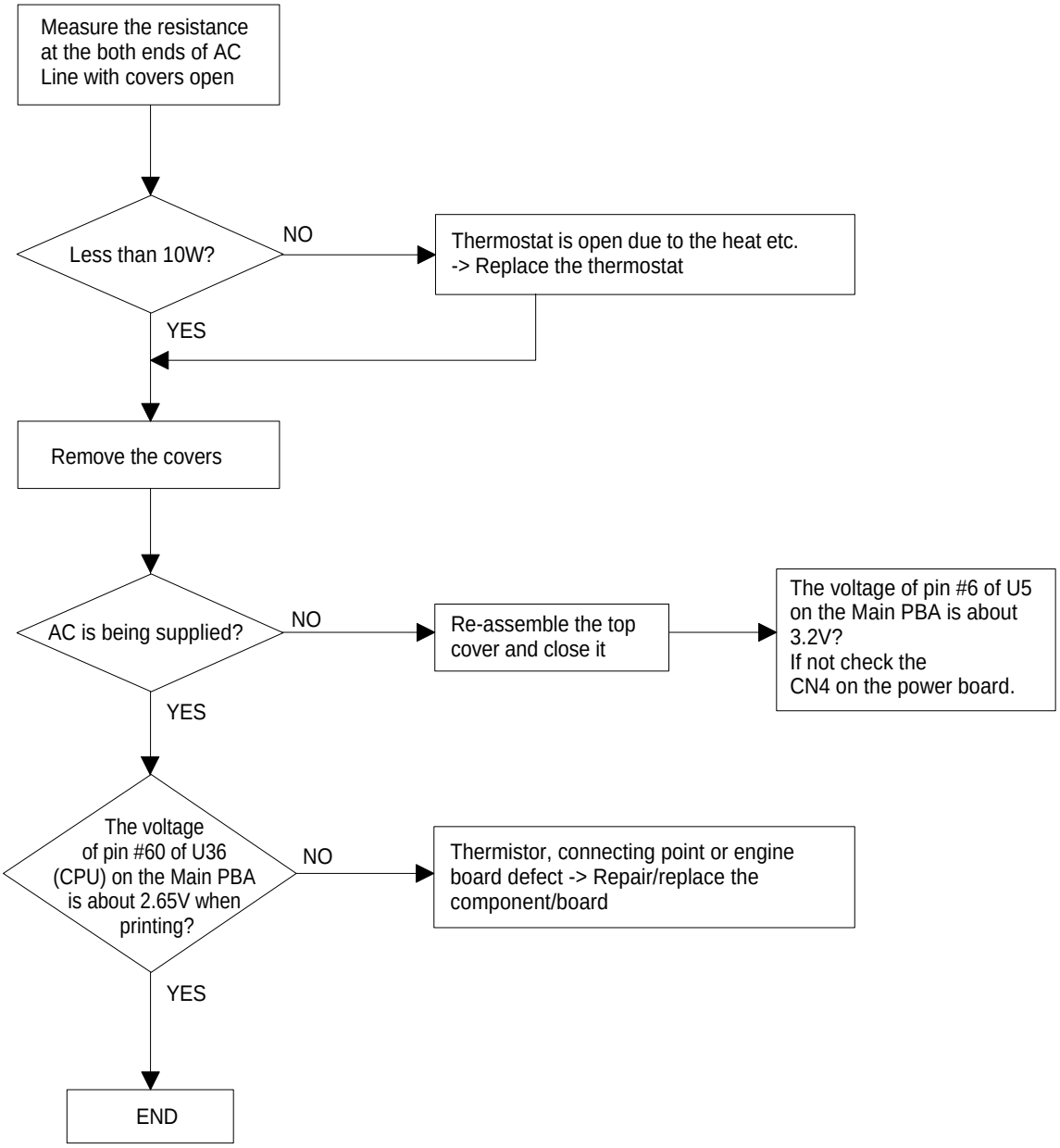
Error Status	Check	Solution
No power	1. Check power is supplying 2. Check fuse F1 open	1. If supplying power differs from machine's power rating, replace the machine. 2. Replace it.
Fuser Error	1. Thermostat open 2. AC wire open 3. Thermistor wire open 4. Main PBA	1. Detach AC connector and measure the resistane between pin 1 and 2. If it is megohm, thermostat is open, Replace it. 2. Check bad connector contact or wire is cut. 3. Check thermistor wire and its connection. 4. Replace Main PBA
Cover open	1. When close Side cover, check the lever is pressed 2. Micro switch's contact 3. CPU and related circuit	1. Open Side cover and press the lever with pen. If Controller detects cover close, there is some mechanical trouble in Side cover and lever's assembly. If not so there is electrical problem.
Jam 0	Check where Jam 0 happens 1. Paper is not picked up 2. Paper is located in feed sensor 3. Happened when inserting specific papers such as envelope into the MPF (Multipurpose Paper Feeder)? 4. Happened when inserting specific papers such as envelope into the Manual Feeder? 5. Is the Stacker Extender is folded out? 6. Does not the Guide Adjust distort the papers	1. Check whether solenoid is working or not by using Engine test mode 2. Check feed sensor malfunction. 3. Re-try inserting a fewer papers. •fan the papers and align •take out the loaded papers and insert them reverse direction 4. Take out the loaded papers and insert them reverse direction •inserted papers as recommended for Manual Feeding? •When loading, tap the papers until paper detect sensor senses loading 5. When using long papers, use the Stacker Extender 6. Adjust Guide to fit the paper width
Jam 1	Paper is stopped in just after of fuser unit.	1. It is mostly resulted from double feeding. Check paper is well stocked in feeder. 2. Check feed actuator position and actuator's operating. There may be stiff movind or double reflection. If not so, check the operation of feed sensor by Engine test mode. 3. Check exit lever operation. Remore jam and check actuator moving by hand. If actuator is too stiff, paper is wrapped around the heat roller. Remove obstacles or replace.
Jam 2	Check where Jam 2 happens 1. Paper is curled and cannot exit. 2. Paper is curled in the exit cover?.	1. Remove paper using pinset or some tool and watch if separate claws have any troble. Clean around fuser. 2. Check locking works wells. Watch whether the ribs of exit cover hace any burr or resisitive edge. If they do, remove obstacles or replace.

Error Status	Check	Solution
Jam 2 at face-down tray	1. Then paper is not drawn in because of the stack of papers in the Out tray. 2. Does it curl while coming out?	1. Load recommended quantity of papers 2. Open the Cover Front and check whether roller or spring, which are related to paper out, is not out of position. If so, re-locate or replace.
Clutch error	1. Check the spring of solenoid 2. Check the armature assembly/cushion 3. Electrical check	1. Check whether the spring is expanded or not. 2. Check armature is well installed. It may be unstable assemble. 3. Remove the Main PBA.
High voltage error	1. Check the terminal output voltage 2. Check HVPS	1. Remove the Toner cartridge and open the cover and press cover open switch lever and measure the voltage with high voltage probe and sending printing data. If the voltage is normal, change the toner cartridge. 2. Disassemble the left side cover, and check HV of the solder side of HVPS and change it.
Feeding obstacles	Does the Plate-knockup prevent the paper loading?	MPF : Turn the power off and on. Open and close the Side cover to return to the original state. Cassette : Adjust Guide to fit the paper width.
Skew	Is the Guide adjust set to the paper width?	Fit the paper width using the Guide adjust.
Stacking	1. Took out the Stacker extender to support long papers? 2. Stacked too many papers more than Stacker can hold?	1. Use extender as per the paper length. 2. The Face-up stacker normally can hold 100 pages when using 75g/m2, however, stacking capacity can be lowered depending on the type of papers.
Engine Error	Check CBF Harness_CN7. (Main PBA to LSU)	Refer to troubleshooring “ENGINE ERROR”.
Document Jam	Document is not picked up(in ADF).	1. Check document is well stocked in ADF. 2. Check whether document was been fastened together by staple or clip. 3. Load recommended quantity of papers.
	Document is stopped after it has fed into the ADF.	1. Check whether the Reg. sensor is working or not. 2. Check whether the Feed Roller is working or not.
	Does it curl while coming out?	1. Check the Open Cover whether there are bosses. 2. Check the ADF ass'y is well assemble.

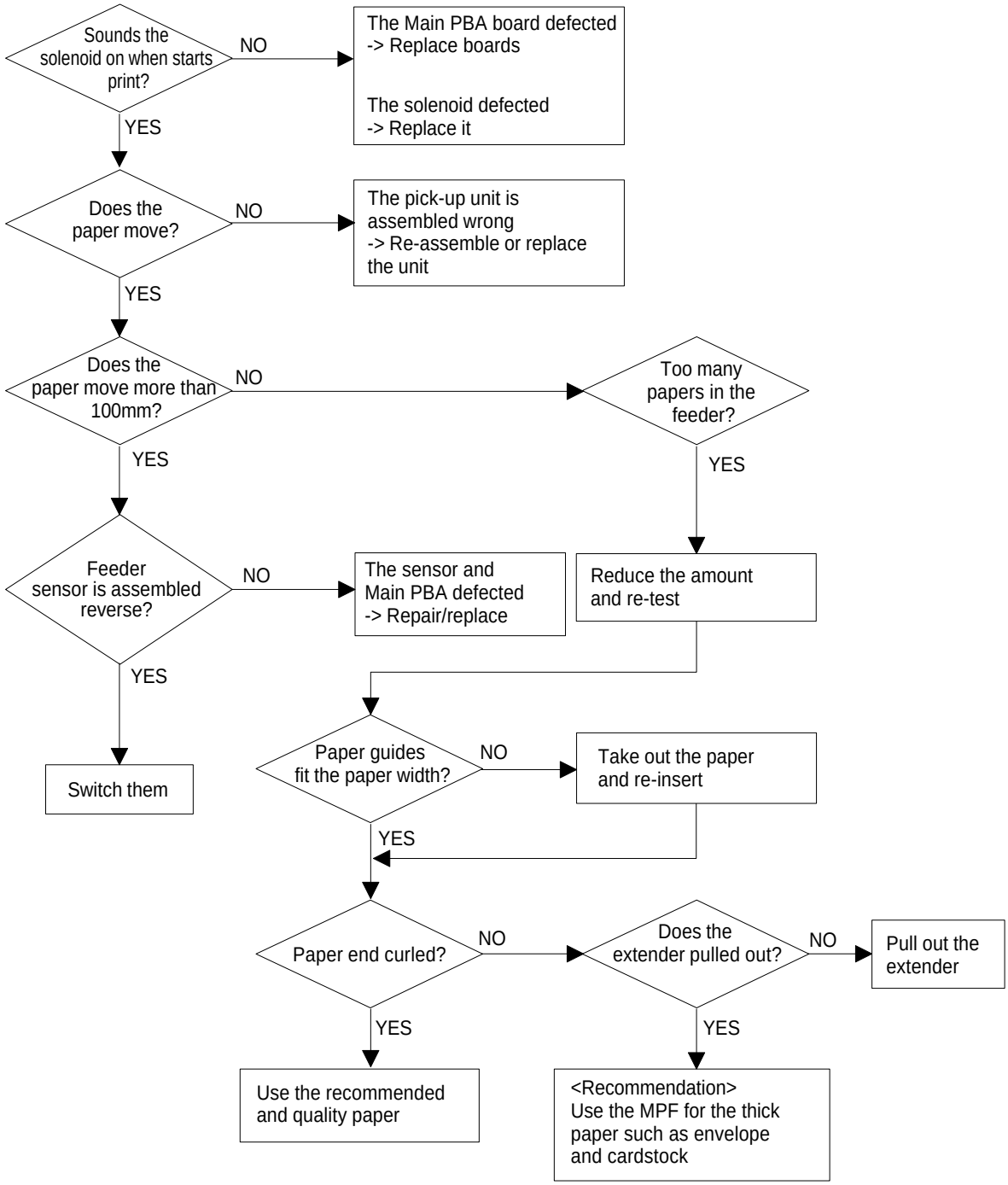
No Power (LCD NO display LED Off)



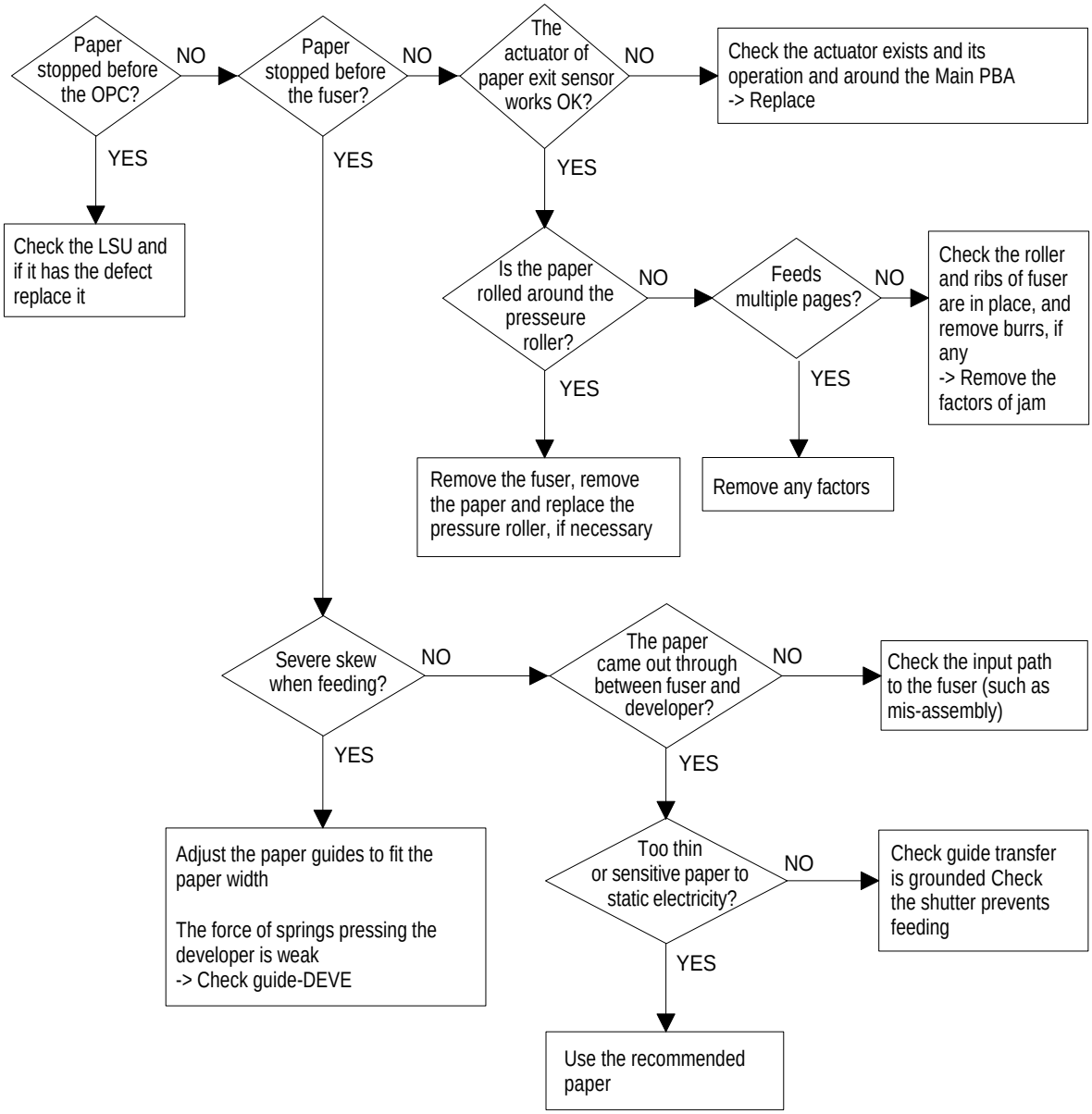
Fuser Error


Measure the resistance at the both ends of AC Line with covers open
Less than 10W?
NO
Thermostat is open due to the heat etc. -> Replace the thermostat
YES
Remove the covers
AC is being supplied?
NO
Re-assemble the top cover and close it
The voltage of pin #6 of U5 on the Main PBA is about 3.2V? If not check the CN4 on the power board.
YES
The voltage of pin #60 of U36 (CPU) on the Main PBA is about 2.65V when printing?
NO
Thermistor, connecting point or engine board defect -> Repair/replace the component/board
YES
END

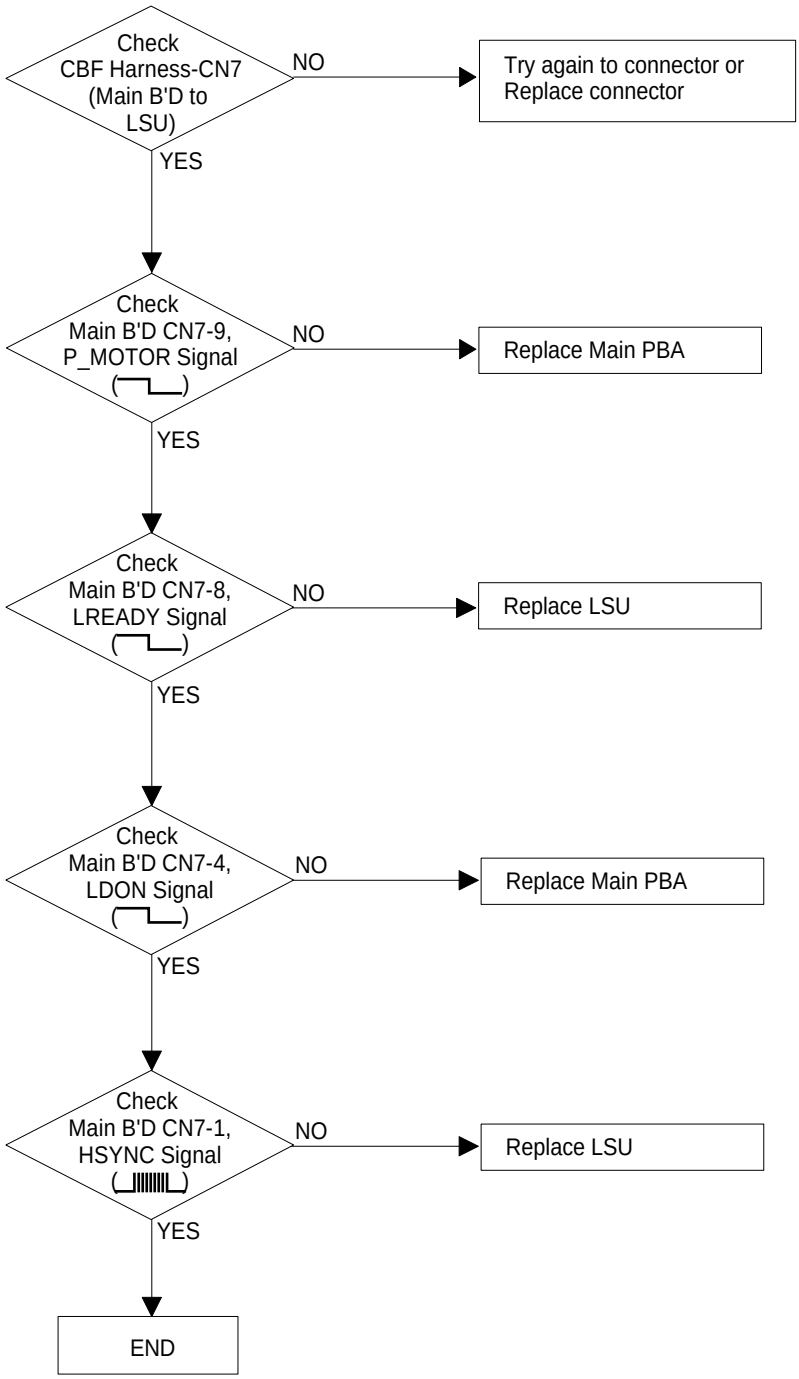
Paper Jam (Mis-Feeding)



Paper Jam(Jam 1)


Paper stopped before the OPC?
NO
Paper stopped before the fuser?
NO
The actuator of paper exit sensor works OK?
NO
Check the actuator exists and its operation and around the Main PBA
-> Replace
YES
YES
YES
Check the LSU and if it has the defect replace it
Is the paper rolled around the presseure roller?
NO
Feeds multiple pages?
NO
Check the roller and ribs of fuser are in place, and remove burrs, if any
-> Remove the factors of jam
YES
YES
Remove the fuser, remove the paper and replace the pressure roller, if necessary
Remove any factors
Severe skew when feeding?
NO
The paper came out through between fuser and developer?
NO
Check the input path to the fuser (such as mis-assembly)
YES
YES
Adjust the paper guides to fit the paper width
The force of springs pressing the developer is weak
-> Check guide-DEVE
Too thin or sensitive paper to static electricity?
NO
Check guide transfer is grounded Check the shutter prevents feeding
YES
Use the recommended paper

Engine Error



4-6-5 Toner Cartridge and Drum Cartridge Service

It is not guaranteed for the default caused by using other toner and Drum Cartridge cartridge other than the cartridge supplied by the Samsung Electronic or caused by non-licensed refill production.

Precautions on Safe-keeping of the Drum Cartridge

Excessive exposure to direct light more than a few minutes may cause damage to the cartridge.

Service for the Life of Toner Cartridge

If the printed image is light due to the life of the toner, you can temporarily improve the print quality by redistributing the toner(Shake the toner cartridge), however, you should replace the toner cartridge to solve the problem thoroughly.

Service for Judgement of Inferior Expendables and the Standard of Guarantee

Please refer to User's Manual or Instructions on Fax/Printer Expendables SVC for the judgement of inferior expendables and the standard of guarantee besides this service manual.

4-6-5-1 Signs and Measures at Poor toner cartridge

Fault	Signs	Cause & Check	Solution
Light image and partially blank image (The life is ended.) Digital Printer Digital Printer Digital Printer Digital Printer Digital Printer	• The printed image is light or unclean and untidy. • Some part of the image is not printed. • Periodically a noise as "tick tick" occurs.	1. If the image is light or unclean and untidy printed image - Shake the developer and then recheck. (1)NG: Check the weight of the developer (2)OK: Lack of toner, so the life is nearly closed. 2. Some part of image is not printed - Shake the developer and then recheck. (1)NG: Check the weight of the developer and clean the LSU window with a cotton swab, then recheck. (2)OK: Lack of toner, so the life is nearly closed. 3. Periodically a noise as "tick tick" occurs - Measure the cycle and the weight of the developer. 4. White vertical stripes on the whole screen or partly : Check the weight of the developer.	1. All of 1, 2, 3 above- If it become better by shaking, replace with a new developer after 50-100 sheets in the closing state of the life span. 2. In case of 2- If it becomes better after cleaning the LSU window, then the developer is normal. (Because of foreign substance on the LSU window, the image has not been printed partly.) 3. In case of 3- If the cycle of noise is about 2 seconds, the toner inside the developer has been nearly exhausted.(Purchase and replace with a new developer after using about 200 sheets at the point of occurrence) 4. In case of 3- This is a phenomenon caused by lack of toner, so replace with a new developer.
Toner Contamination	• Toner is fallen on the papers periodically. • Contaminated with toner on prints partly or over the whole surface.	1. Toner is fallen on the paper periodically. (1)Check the cycle of the falling of the toner. (2)Check the appearance of both ends of the developer OPC drum. 2.The center of the printed matter is contaminated with toner. (1)Check whether foreign substances or toner are stuck to the terminal (contact point) of the developer. (2)Check whether the state of the terminal assembly is normal.	1. If both ends of the OPC drum are contaminated with toner: Check the life of the developer. 2. Check whether it could be recycled.

Fault	Signs	Cause & Check	Solution
White Black spot 	• Light or dark black dots on the image occur periodically. • White spots occur in the image periodically.	1. If light or dark periodical black dots occur, this is because the developer rollers are contaminated with foreign substance or paper particles. (1)37.7mm interval : Charged roller (2)94.3mm interval : OPC cycle 2. If white spots occur in a black image at intervals of 94.3 mm, or black spots occur elsewhere, the OPC drum is damaged or foreign substance is stuck to the surface. 3. If a black and white or graphic image is partially broken at irregular intervals, the transfer roller's life has been expired or the transfer voltage is abnormal.	1. In case of 1 above - Run OPC Cleaning Mode Print 4-5 times repeatedly to remove. Especially check foreign substance on the OPC surface, then remove them with a clean gauze moistened with IPA(Isopropyl Alcohol) not to damage OPC if necessary. Caution : Never use usual alcohol. 2. In case of 2 If they are not disappeared by running OPC Cleaning Mode Print 4-5 times. : at intervals of 94.3mm - Replace the OPC Drum. : at intervals of 37.7mm - Remove foreign substance, Clean the Charged Roller : Broken image - Replace the developer according to carelessness. 3. In case of 3 - Exchange the transfer roller because the life of the transfer roller in use has been expired. (Check the transfer voltage and readjust if different.)
Recycled product	• Poor appearance of the developer. • Unclean and rough printouts. • Bad background in the image.	1. Poor appearance of the developer. (1)Check the damage to label and whether different materials are used. (2)Check the appearance of parts of the developer, such as frame, hopper. 2. Unclean and rough printouts. (1)Check whether foreign substance or toner are stuck to the terminal (contact point) of the developer. (2)Check whether the state of the terminal assembly is normal.	1. In case of 1 - (1)If there is an evidence of disassembling the developer. (2)If materials other than normal parts of the developer are added or substituted. 2. In case of 2 - If there are any abnormals in connection with the situation of 1. (1)It occurs when the developer is recycled over 2 times. (2)If toner nearly being expired are collected to use, it is judged as the recycled developer.

Fault	Signs	Cause & Check	Solution
Ghost & Image Contamination	• The printed image is too light or dark, or partially contaminated black. • Totally contaminatedblack. (Black image printed out)	1. The printed image is too light or dark, or partially contaminated black. (1)Check whether foreign sub stance or toner are stuck to the terminal(point of contact) of the developer. (2)Check whether the terminal assembly is normal. 2. Totally contaminated black. (Black image printed out) (1)Check whether foreign sub stances are stuck to the terminal(point of contact) of the developer and the state of assembly. (Especially check the charged roller terminal.)	1. All of 1, 2, 3 above (1)Remove toner and foreign substances adhered to the contact point of the developer. (2)The contact point of the unit facing that of the developer also must be cleaned. (3)If the terminal assembly is unsafe: • Fully stick the terminal to or reassemble it after disassembling. • Disassemble the side plate and push the terminal to be stuck, then reassemble it. 2. In case of 2 It is a phenomenon when the OPC drum of the developer is not electrically charged. Clean the terminals of the charged roller, then recheck it.

4-6-6 The cause and solutions of bad environment of the software

4-6-6-1 The printer is not working (1)

• **Description :** While Power turned on, the printer is not working in the printing mode.

Check and Cause	Solution
1. Check if the PC and the printer is properly connected and the toner cartridge installed.	1. Replace the printer cable. If the problems not solved even after the cable replaced, check the amount of the remaining tone.
2. Printing is nor working in the Windows.	2. Check if the connection between PC and printer port is proper. If you use windows, check if the printer driver in the controller is set up. If the printer driver is properly set up, check in which program the printing is not working. The best way to find out is to open the memo pad to check the function of printing. If it is not working in a certain program, adjust the setup the program requires. Sometimes, the printout is normal within the Windows basic programs, but it's not working in a particular program. In such case, install the new driver again. If not working in the Windows basic program, Check the setup of the port of CMOS is on ECP. And check the address of IRQ 7 and 378
3. Check if the printer cable is directly connected to peripheral devices	3. If the scanner needs to be connected to the printer, first the remove the scanner from the PC to see if the printer is properly working alone.

4-6-6-2 The printer is not working (2)

• **Description :** After receiving the printing order, no response at all or the low speed of printing occurs due to wrong setup of the environment rather than malfunction of the printer itself.

Check and Cause	Solution
1. Secure more space of the hard disk.	1. Not working with the message 'insufficient printer memory' means hard disk space problem rather than the RAM problem. In this case, provide more space for the hard disk. Secure more space using the disk utilities program.
2. Printing error occurs even if there is enough space in the hard disk.	2. The connection of the cable and printer port is not proper. Check if the connection is properly done and if the parallel port in CMOS is rightly set up.
3. Check the parallel-port-related items in the CMOS Setup.	3. As a printer port, Select ECP or SPP among SPP(Normal), ECP, and EPP modes(increase printing speed) SPP normal mode support 8-bit data transfer, while ECP Mode transfer the 12-bit data.
4. Reboot the system to print.	4. If the regular font is not printing, the cable or the printer driver may be defective. Turn the PC and printer off, and reboot the system to print again. If not solved, double-click the printer in my computer If the regular fonts are not printed this time again. the cable must be defective so replace the cable with new one.

4-6-6-3 Abnormal Printing

• **Description :** The printing is not working properly even when the cable has no problem. (even after the cable is replaced) If the printer won't work at all or the strange fonts are repeated, the printer driver may be defective or wrong setup in the CMOS Setup.

Check and Cause	Solution
1. Set up the parallel port in the CMOS SETUP.	1. Select SPP(Normal) or ECP LPT Port the among ECP, EPP or SPP in the CMOS Setup.
2. Printer Driver Error.	2. Check the printer in My Computer.(to see if the printer driver is compatible to the present driver or delete the old driver, if defective and reinstall the new driver)
3. Error message from insufficient memory. (The printing job sometimes stops or due to insufficient virtual memory, but it actually comes from the insufficient space of the hard disk.)	3. Delete the unnecessary files to secure enough space of the hard disk and start printing job again.

4-6-6-4 SPOOL Error

• **Description :** To spool which stands for "simultaneous peripheral operations online" a computer document or task list (or "job") is to read it in and store it, usually on a hard disk or larger storage medium so that it can be printed or otherwise processed at a more convenient time (for example, when a printer is finished printing its current document).

Check and Cause	Solution
1. Insufficient space of the hard disk in the directory assigned for the basic spool.	1. Delete the unnecessary files to provide more space to start printing job.
2. If the previous printing error not solved.	2. If there are some files with the extension name of ****.jnl, Delete them and Reboot the Windows to restart printing job.
3. When expected to collide with other program.	3. Shut down all other programs except the current one, if possible.
4. When an application program or the printer driver is damaged.	4. Delete the printer driver completely and reinstall it.
5. When some files related to OS are damaged or virus infected.	5 After rebooting the computer, check for viruses, restore the damaged files and reinstall the program to do the printing job.
6. Memory is less than suggested one.	6. Add up enough memory to the PC.

How to delete the data in the spool manager.

In the spool manager, the installed drivers and the list of the documents waiting to be printed are shown.
Select the document to be deleted and check the delete menu.
If you intend to delete the current document being printed, the data being transferred to the printer will be put out and then the document is removed. Before choosing the document, the menu is still inactive.
Or put the document out of the list and repeat the routine as in the above or finish the spool manager.

5. Exploded View & Parts List

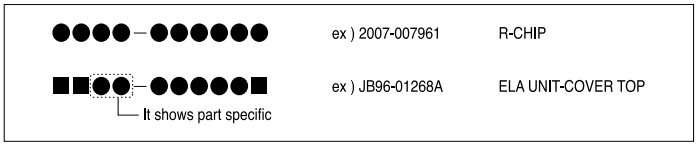
5-1. Main Exploded View & Parts List..... page(5-2)
5-2. Platen Ass'y Exploded View & Parts List..... page(5-5)
5-3. ADF ASS'Y Exploded View & Parts List..... page(5-9)
5-4. Side Cover Ass'y Exploded View & Parts List..... page(5-12)
5-5. Cassette Ass'y Exploded View & Parts List..... page(5-14)
5-6. Exit Ass'y Exploded View & Parts List..... page(5-16)
5-7. Feeder Ass'y Exploded View & Parts List..... page(5-18)
5-8. MP Ass'y Exploded View & Parts List..... page(5-20)
5-9. Base Frame Exploded View & Parts List..... page(5-22)
5-10.Pick-up Ass'y Exploded View & Parts List..... page(5-24)
5-11. Drive Ass'y Exploded View & Parts List..... page(5-26)
5-12. Main Frame Ass'y Exploded View & Parts List..... page(5-28)
5-13. FuserAss'y Exploded View & Parts List..... page(5-30)
5-14. Screw..... page(5-32)

- Deal drawings and service parts are declared for the items with higher rate of inferiority and replaceable in the level of service description only.
- If inferiority occurs, you can replace the parts by the unit declared in deal drawings and service items.

Way to observe Part Code & Description

Part code and Description is quoted and controlled by determined standard. Refer to this determined standard, it will help with ordering Part.

• **There are two kinds of Part code inscription type.**



(● : figure, ■ : character (alphabet))

Type 1 : Controlled by Company : It can be commonly used for all kinds of product SEC produce. Mostly, electronics Parts.

Type 2 : Controlled by Division : It is used or one produce. Mostly, Mostly, mechanical Parts.

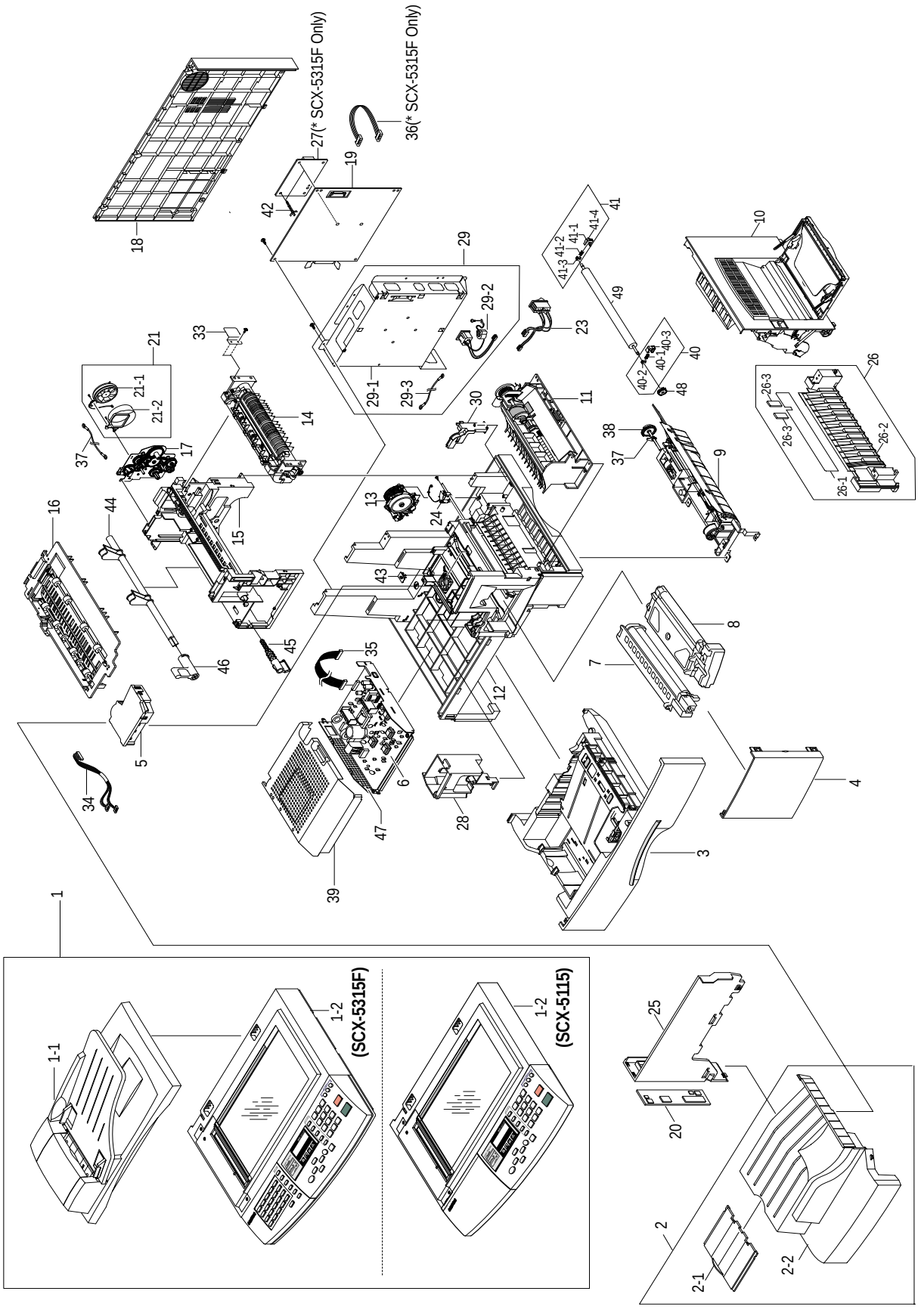
• **A/S privately used part :** It is only used for A/S .

• **Ass'y part :** Assembled by more than 2 Parts. If necessary part is not A/S Part, Ass'y part including necessary par can be used. It is shown in the diagram and drawing of SVC manual.

• Ass'y part and A/S privately used Part is distinguished by part Code and Description.
The are inscription type 2. It is recognized by Part character and front side of description.

DIVISION	PART CODE	DESCRIPTION
A/S Private	**81-****** (JB81-00039A)	AS-***** (AS-USE)
ASS'Y Part	**75-****** (JB75-00068A)	MEC-***** (MEC-CHUTE)
ASS'Y Part	**92-****** (JB92-01131A)	PBA ****** (PBA MAIN-CONTROLLER)
ASS'Y Part	**97-****** (JB97-01089A)	MEA ****** (MEA UNIT-PULLEY IDLE)

5-1. Main Exploded View & Parts List



Main Parts List

NO	DESCRIPTION	SEC CODE	Q'TY	SA	REMARK
1	ELA HOU-SCANNER	JC96-02718A	1	O	SCX-5115
	ELA HOU-SCANNER	JC96-02717A	1	O	SCX-5315F
1-1	ELA HOU-ADF	JC96-02750A	1	O	
1-2	ELA HOU-PLATEN	JC96-02752A	1	O	SCX-5115
	ELA HOU-PLATEN	JC96-02748A	1	O	SCX-5315F
2	MEA UNIT-COVER PA EXIT ASS'Y	JC97-01556B	1	O	
2-1	PMO-TRAY EXTENTION MP NE	JC72-00354B	1	O	
2-2	PMO-COVER PAPER EXIT	JC72-00786B	1	O	
3	MEA UNIT-CASSETTE(KOR)	JC97-01736A	1	O	
4	MEA UNIT-COVER FRONT ASS'Y	JC97-01572B	1	O	
5	UNIT-LSU,600DPI,15	JC59-00014B	1	O	
6	ELA ETC-SHIELD SMPS LOWER	JC96-02422A	1	O	CHINA ONLY
	ELA ETC-SHIELD SMPS LOWER	JC96-02310B	1	O	110V
	ELA ETC-SHIELD SMPS LOWER	JC96-02317A	1	O	220V
7	ELA-OPC UNIT 15K D	JC96-02460A	1	X	
8	ELA-TONER UNIT 6K D	JC96-02461A	1	X	
9	ELA HOU-PICK UP	JC96-02715B	1	O	
10	ELA HOU-SIDE COVER	JC96-02183B	1	O	
11	ELA HOU-MP ASS'Y	JC96-02182A	1	O	
12	ELA HOU-BASE FRAME	JC96-02818A	1	O	
13	MEC-FEED ASS'Y	JC75-00143B	1	O	
14	ELA HOU-FUSER	JC96-02814A	1	O	110V
	ELA HOU-FUSER	JC96-02815A	1	O	220V
15	ELA HOU-FRAME MAIN ASS'Y	JC96-02184A	1	O	
16	MEA UNIT-EXIT ASS'Y	JC97-01643A	1	O	
17	ELA HOU-DRIVE(15PPM)	JC96-02741A	1	O	
18	PMO-COVER REAR	JC72-00788A	1	O	
19	PBA MAIN-MAIN	JC92-01480A	1	O	SCX-5115
19	PBA MAIN-MAIN	JC92-01479A	1	O	SCX-5315F
20	COVER-M-PANNEL MFP	JC63-00215B	1	O	SCX-5115
20	COVER-M-PANNEL MFP	JC63-00215A	1	O	SCX-5315F
21	ELA HOU-DUCT FAN	JC96-02311A	1	O	
21-1	FAN-DC	JC31-00012A	1	O	
21-2	PMO-DUCT FAN	JC72-00807A	1	O	
23	CBF HARNESS-SWITCH GRAY	JC39-00055B	1	O	
24	SOLENOID-PICK UP	JC33-00007A	1	O	

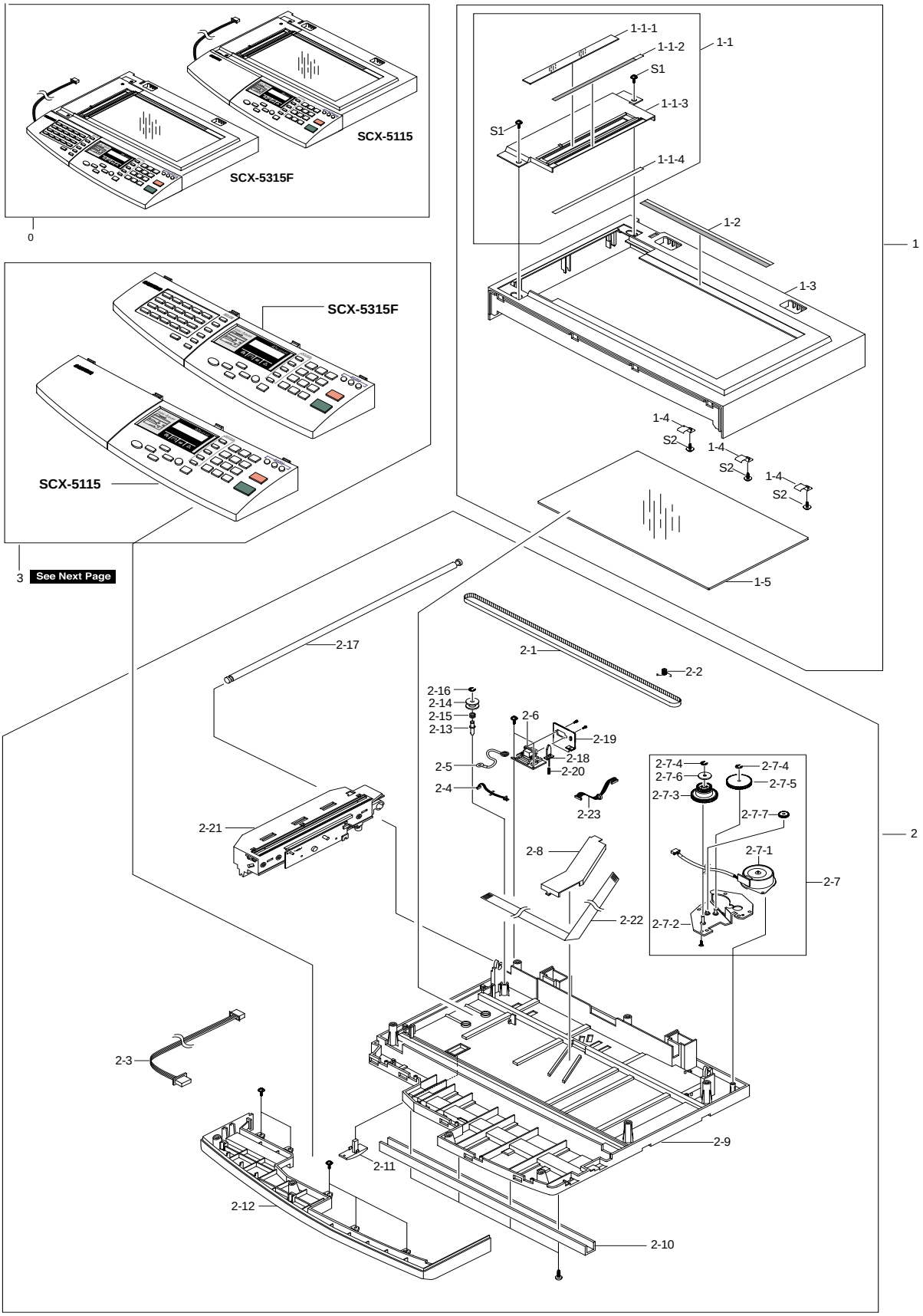
O : Service available X : Service not available

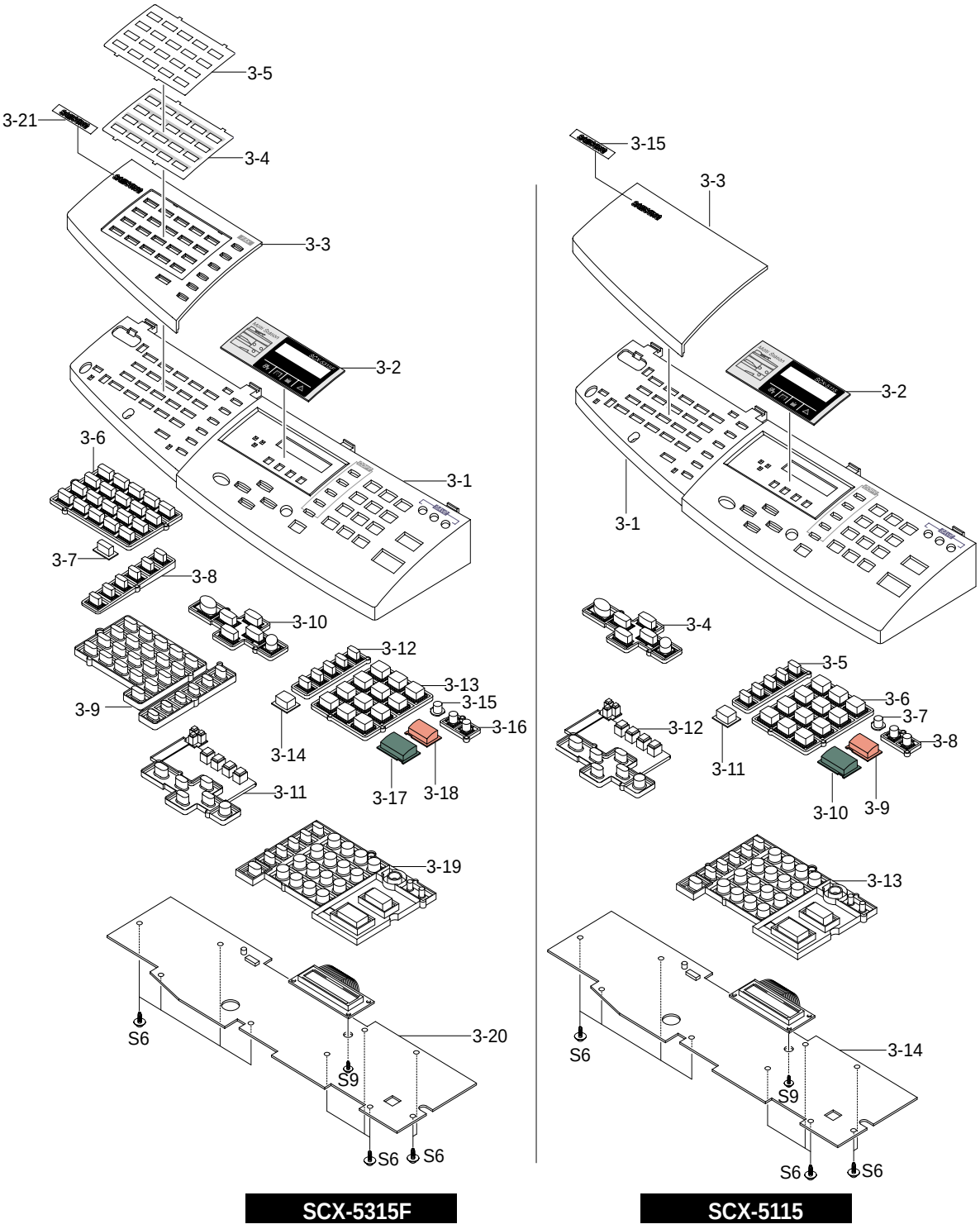
Main Parts List (Cont.)

NO	DESCRIPTION	SEC CODE	Q'TY	SA	REMARK
25	PMO-COVER EXIT REAR	JC72-00790A	1	O	
26	MEA UNIT-GUIDE CST PA ASS'Y	JC97-01575A	1	O	
26-1	PPR-SHEET/GUIDE PAPER	JC72-00836A	1	X	
26-2	PMO-GUIDE CASSETTE RAIL	JC72-00791A	1	X	
26-3	SHEET-FEED	JC63-00078A	2	X	
27	PBA SUB-LIU	JC92-01355A	1	O	SCX-5315F/XAA
28	PMO-DUMMY BASE FRAME	JC72-00789A	1	O	
29	ELA HOU-SHIELD MAIN LOWER	JC96-02835A	1	O	
29-1	SHIELD-P-MAIN LOWER	JC63-00188A	1	X	
29-2	CBF HARNESS-INLET(KOREA)	JC39-00186A	1	X	
29-3	CBF HARNESS-LIU GND	JB39-00103A	1	O	
30	PMO-COVER FEED AY	JC72-00801A	1	O	
31	PMO-COVER BRKT MOTER	JC72-00834A	1	O	
32	PMO-GUIDE PAPER OUT	JC72-00835A	1	O	
33	SHEET-CONNECTOR	JC63-00072A	1	O	
34	CBF HARNESS-LSU	JC39-00163A	1	O	
35	CBF HARNESS-POWER+HVPS	JC39-00162A	1	O	
36	CBF HARNESS-LIU	JB39-00104A	1	O	Only SCX-5315F
37	PMO-BEARING SHAFT	JC72-41191A	1	O	
38	GEAR-PICK_UP	JC66-00335A	1	O	
39	IPR-SHIELD SMPS UPPER	JC70-00248A	1	O	
40	MEA UNIT-HOLD GEAR ASS'Y	JC97-01573A	1	O	
40-1	SPRING ETC-TR_R	JC61-70906A	1	X	
40-2	PMO-BUSH	JC72-40228A	1	O	
40-3	PMO-HOLDER GEAR TR	JC72-00884A	1	X	
41	MEA UNIT-HOLD GND ASS'Y	JC97-01574A	1	O	
41-1	SPRING ETC-PLATE TR	JC61-70203A	1	X	
41-2	SPRING ETC-TR_L	JC61-70961A	1	X	
41-3	PMO-BUSH	JC72-40228A	1	O	
41-4	PMO-HOLDER GND TR	JC72-00883A	1	X	
42	SUPPORTER	6103-001048	2	O	
43	PMO-WINDOW SENSOR DEVE	JC72-00792A	1	O	
44	PMO-CAM JAM REMOVE	JC72-00799A	1	O	
45	PMO-LOCKER DEVE	JC72-00805A	1	O	
46	PMO-LEVER JAM REMOVE	JC72-00804A	1	O	
47	IPR-SHIELD SMPS LOWER	JC70-00247A	1	O	
48	GEAR-TRANSFER	JC66-40947A	1	O	
49	MEC-TRANSFER ROLLER	JC75-00148A	1	O	

O : Service available X : Service not available

5-2. Platen Ass'y Exploded View & Parts List





SCX-5315F **SCX-5115**

Platen Ass'y Parts List

NO	DESCRIPTION	SEC CODE	Q'TY	SA	REMARK
0	ELA HOU-PLATEN	JC96-02748A	1	O	SCX-5315F
	ELA HOU-PLATEN	JC96-02752A	1	O	SCX-5115
1	ELA HOU-SCAN UPPER	JC81-01688A	1	O	
1-1	AS-DUMMY UPPER AS (FRV)	JC81-00426A	1	O	
1-1-1	MCT-GLASS ADF	JC74-00019A	1	X	
1-1-2	LABEL(R)-REGISTRATION EDGE(L)	JB68-00469A	1	X	
1-1-3	PMO-DUMMY UPPER	JC72-00759A	1	X	
1-1-4	SHEET-DUMMY UPPER	JC63-00074A	1	X	
1-2	PPR-REGISTRATION EDGE(F)	JC72-00809A	1	O	
1-3	PMO-COVER SCAN UPPER	JC72-00758A	1	O	
1-4	IPR-HOLDER GLASS	JB70-00148A	3	X	
1-5	MCT-GLASS SCANNER(LEGAL)	JC74-00018A	1	O	
2	ELA HOU-SCAN LOWER	JC96-02706B	1	O	
2-1	BELT-TIMING GEAR	6602-001090	1	O	
2-2	SPRING ETC-BELT	JB61-00059A	1	O	
2-3	CBF HARNESS-OPE	JC39-00167A	1	O	
2-4	CBF HARNESS-MAIN-ENGINE	JC39-00030A	1	O	
2-5	CBF HARNESS-DRIVER GND	JB39-00065A	1	X	
2-6	PBA SUB-D_SUB	JC92-01381A	1	O	
2-7	ELA HOU-SCAN MOTOR	JC96-02751A	1	O	
2-7-1	MOTOR STEP-SCAN	JB31-00011A	1	O	
2-7-2	BRACKET-MOTOR PLATEN	JC61-00702A	1	X	
2-7-3	GEAR-TIMING	JC66-00531A	1	O	
2-7-4	RING-E	6044-000125	3	O	
2-7-5	GEAR-REDUCTION73/37	JC66-00530A	1	O	
2-7-6	PMO-HOLDER BELT	JB72-00764A	1	O	
2-7-7	GEAR IDLE	JB66-00083A	1	O	
2-8	COVER-M-CCD CABLE	JC63-00158A	1	O	
2-9	COVER-SCAN LOWER(UMAX)	JC63-00157A	1	O	
2-10	IPR-CHANNEL BASE FRAME	JC70-00239A	2	O	
2-11	HOLDER-M-CCD(UMAX)	JC61-00703A	1	O	
2-12	PMO-COVER DUMMY LOWER(C)	JC72-00794A	1	O	
2-13	ICT-INSERT SHAFT	JB70-00154A	1	X	
2-14	PMO-PULLEY	JB72-00763A	1	O	
2-15	PMO-HOLDER BELT	JB72-00764A	1	O	
2-16	RING-E	6044-000125	1	O	
2-17	SHAFT-CCD(UMAX)	JC66-00532A	1	O	
2-18	PMO-LEVER SENSOR	JC72-00755A	1	O	
2-19	IPR-BRK SCAN BD	JC70-00228A	1	O	
2-20	SPRING ETC-EXIT	JB61-70939A	1	X	
2-21	ELA HOU-CCD MODULE	JC96-02759A	1	O	
2-22	CBF SIGNAL-CCD FFC	JC39-00236A	1	O	
2-23	CBF HARNESS-SCAN MOTOR	JB39-00077A	1	O	
3	ELA HOU-OPE	See Next Page			

O : Service available X : Service not available

SCX-5315F (OPE)

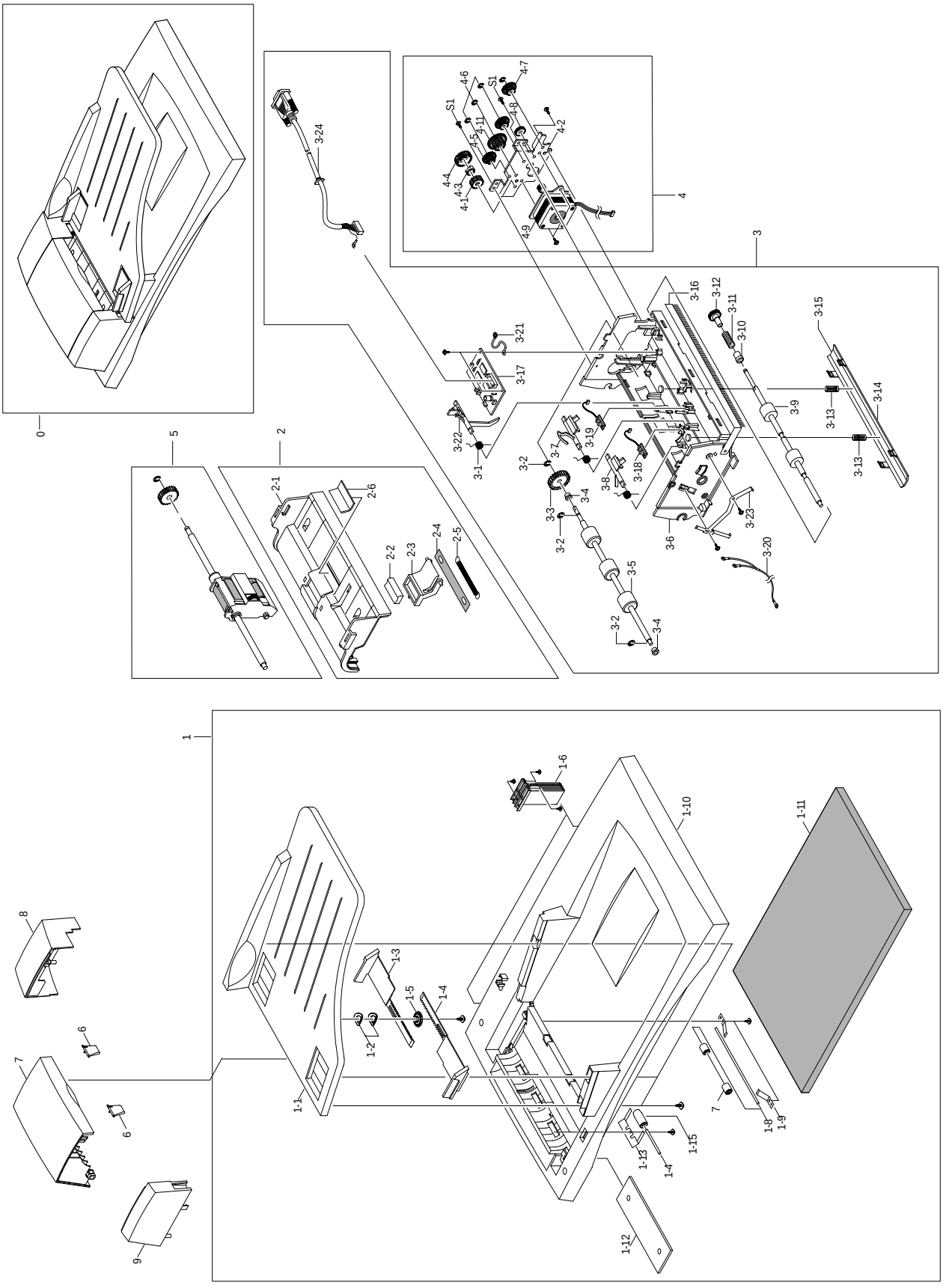
NO	DESCRIPTION	SEC CODE	Q'TY	SA	REMARK
3	ELA HOU-OPE	JC96-02749A	1	O	SCX-5315F
3-1	PMO-OPE COVER	JC72-00796A	1	O	
3-2	WINDOW-LCD (4IN1)	JC64-00071A	1	O	
3-3	PMO-COVER DUMMY OPE(M)	JC72-00858A	1	O	
3-4	PCT-ONETOUCH PAPER	JC72-00872A	1	O	
3-5	PCT-ONETOUCH CARD	JC72-00871A	1	O	
3-6	PMO-KEY ONETOUCH	JC72-00860A	1	O	
3-7	PMO-KEY SHIFT	JC72-00861A	1	O	
3-8	PMO-KEY FAX	JC72-00862A	1	O	
3-9	RMO-RUBBER ONETOUCH	JC73-00104A	1	O	
3-10	PMO-KEY SCROLL	JC72-00866A	1	O	
3-11	RMO-RUBBER SCROLL	JC73-00106A	1	O	
3-12	PMO-KEY COPY	JC72-00863A	1	O	
3-13	PMO-KEY TEL	JC72-00865A	1	O	
3-14	PMO-KEY OHD	JC72-00864A	1	O	
3-15	PMO-KEY SAVE(T)	JC72-00923A	1	O	
3-16	PMO-KEY SAVE	JC72-00867A	1	O	
3-17	PMO-KEY START	JC72-00868A	1	O	
3-18	PMO-KEY STOP	JC72-00869A	1	O	
3-19	RMO-RUBBER TEL	JC73-00105A	1	O	
3-20	PBA SUB-OPE(KOR)	JC81-00779A	1	O	
3-21	NPR-BADGE(45)	JC71-00010A	1	X	

SCX-5115 (OPE)

NO	DESCRIPTION	SEC CODE	Q'TY	SA	REMARK
3	ELA HOU-OPE(SEC)	JC96-02753A	1	O	SCX-5115
3-1	PMO-OPE COVER	JC72-00944A	1	O	
3-2	WINDOW-LCD(3IN1)	JC64-00071B	1	O	
3-3	PMO-COVER DUMMY OPE(C)	JC72-00859A	1	O	
3-4	PMO-KEY SCROLL	JC72-00866A	1	O	
3-5	PMO-KEY COPY	JC72-00863A	1	O	
3-6	PMO-KEY TEL	JC72-00865A	1	O	
3-7	PMO-KEY SAVE(T)	JC72-00923A	1	O	
3-8	PMO-KEY SAVE	JC72-00867A	1	O	
3-9	PMO-KEY STOP	JC72-00869A	1	O	
3-10	PMO-KEY START	JC72-00868A	1	O	
3-11	PMO-KEY OHD	JC72-00864B	1	O	
3-12	RMO-RUBBER SCROLL	JC73-00106A	1	O	
3-13	RMO-RUBBER TEL	JC73-00105A	1	O	
3-14	PBA SUB-OPE(KOR)	JC81-00779A	1	O	
3-15	NPR-BADGE(45)	JC71-00010A	1	X	

O : Service available X : Service not available

5-3. ADF ASS'Y Exploded View & Parts List



ADF Ass'y Parts List

NO	DESCRIPTION	SEC CODE	Q'TY	SA	REMARK
0	ELA HOU-ADF	JC96-02750A	1	O	
1	MEA UNIT-PLATEN COVER	JC97-01722A	1	O	
1-1	PMO-TX STACKER	JC72-00745A	1	O	
1-2	IPR-WASHER SPRING CU	JF70-10616A	2	O	
1-3	PMO-DOC GUIDE L	JC72-00839B	1	O	
1-4	PMO-DOC GUIDE R	JC72-00838B	1	O	
1-5	PMO-GEAR PINION	JF72-41354A	1	O	
1-6	MEA UNIT-HINGE	JC97-01731A	2	O	
1-7	RPR-ROLLER EXIT IDLE	JC73-00091A	2	O	
1-8	IPR-SHAFT EXIT	JC70-00242A	1	O	
1-9	NPR-SPRING PINCH DRIVE	JB71-00038A	2	O	
1-10	PMO-COVER PLATEN	JC72-00738A	1	O	
1-11	PPR-SPONG SHEET	JC72-00751A	1	O	
1-12	SHEET ABS-SHEET PLATEN(PET)	JC72-00750B	1	O	
1-13	IPR-SPRING PINCH	JC70-00260A	3	O	
1-14	ICT-SHAFT PINCH	JC70-00265A	3	X	
1-15	PMO-ROLL PINCH	JG72-40663A	3	O	
2	MEA UNIT-ADF UPPER ASS'Y	JC97-01581A	1	O	
2-1	PMO-COVER ADF UPPER	JC72-00736A	1	O	
2-2	RMO-ADF RUBBER	JB73-00052A	1	O	
2-3	PMO-HOLDER ADF	JB72-00825A	1	O	
2-4	RPR-SPONGE ADF	JB73-10913A	1	X	
2-5	SPRING ETC-COIL ADF	JC61-00040A	1	O	
2-6	SHEET-ADF	JC63-00079A	1	O	
3	ELA HOU-ADF LOWER ASS'Y	JC81-00434A	1	O	
3-1	SPRING ETC-TORSION DOC (CC2-F)	JB61-00076A	3	O	
3-2	RING-C	6044-000159	4	X	
3-3	GEAR-ADF 38	JB66-00103A	1	O	
3-4	PMO-BUSH	JB72-00819A	2	O	
3-5	MEC-ROLLER DRIVER	JC75-00149A	1	O	
3-6	PMO-COVER ADF LOWER	JC72-00735A	1	O	
3-7	PMO-ACTUATOR SENSOR DOC	JB72-00837A	1	O	
3-8	PMO-ACTUATOR SENSOR REGI	JC72-00747A	1	O	
3-9	MEC-ROLLER EXIT	JC75-00150A	1	O	
3-10	PMO-BUSHING HOLDER	JG72-40732A	1	O	
3-11	SPRING ETC-CLUTCH	JC61-00062A	1	O	
3-12	GEAR-EXIT 23	JC66-00323A	1	O	
3-13	SPRING ETC-WHITE BAR	JC61-00548A	1	O	
3-14	IPR-BRKT WHITE BAR	JC70-00225A	1	O	
3-15	PPR-WHITE BAR SHEET	JC72-00752A	1	O	

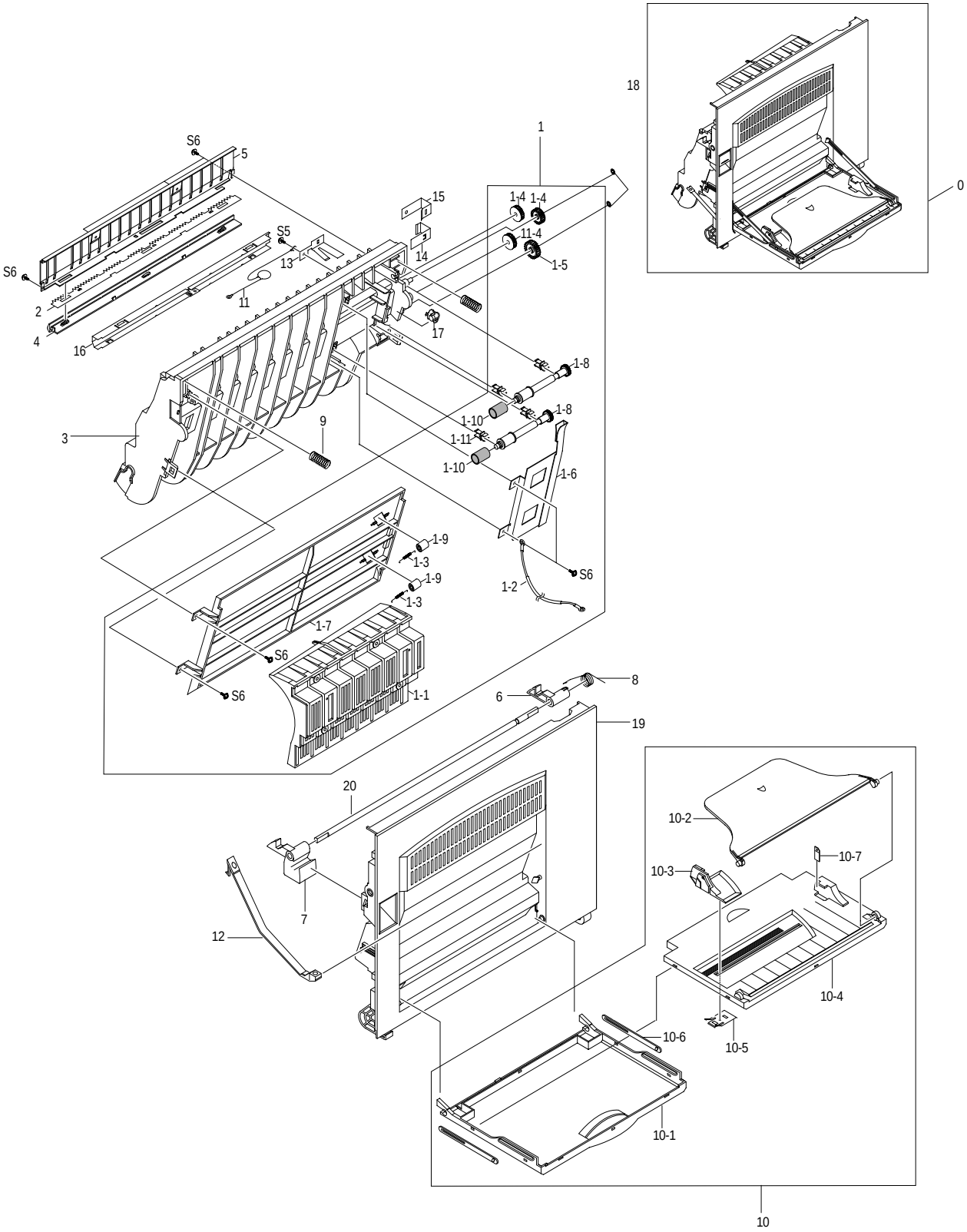
O : Service available X : Service not available

ADF Ass'y Parts List(Cont.)

NO	DESCRIPTION	SEC CODE	Q'TY	SA	REMARK
3-16	TAPE ETC-ANTI BRUSH	JC02-00014A	1	X	
3-17	PBA SUB-ADF	JC81-00437A	1	O	
3-18	PBA SUB-ADF POS SEN	JC92-01365A	1	O	
3-19	PBA SUB-ADF DET SEN	JC92-01366A	1	O	
3-20	CBF HARNESS-ADF ROLLER GND	JC39-00187A	1	O	
3-21	CBF HARNESS-DRIVER GND	JB39-00065A	1	O	
3-22	PMO-ACTUATOR SENSOR SCAN	JC72-00746A	1	X	
3-23	NPR-SPRING GND	JC71-00031A	1	O	
3-24	CBF D SUB CABLE-ADF_MAIN CABLE	JC39-00190A	1	O	
4	ELA HOU-ADF MOTOR ASS'Y	JC81-00435A	1	O	
4-1	GEAR-CLUTCH 29	JB66-00101A	1	X	
4-2	IPR-BRKT ADF MOTOR	JC70-00224A	1	X	
4-3	PMO-WHITE CLUTCH SUB 29	JB72-00844A	1	X	
4-4	GEAR-CLUTCH 39	JC66-00322A	1	X	
4-5	GEAR-IDLE20/33	JG66-40038A	2	X	
4-6	RING-C	6044-000159	7	X	
4-7	GEAR-IDLE17/35	JG66-40039A	2	X	
4-8	GEAR-IDLE25	JG66-40036A	1	X	
4-9	MOTOR STEP-ADF	JC31-00017A	1	O	
4-10	GEAR-JAM REMOVE	JC66-00329A	1	X	
4-11	GEAR-REDUCTION 45/19	JC66-00324A	1	X	
5	MEA UNIT-PICKUP ASS'Y	JC97-01582A	1	O	
6	PMO-GUIDE PAPER	JB72-00843A	2	O	
7	PMO-COVER OPEN	JC72-00737A	1	O	
8	PMO-COVER SIDE L	JC72-00739A	1	O	
9	PMO-COVER SIDE R	JC72-00740A	1	O	

O : Service available X : Service not available

5-4. Side Cover Ass'y Exploded View & Parts List

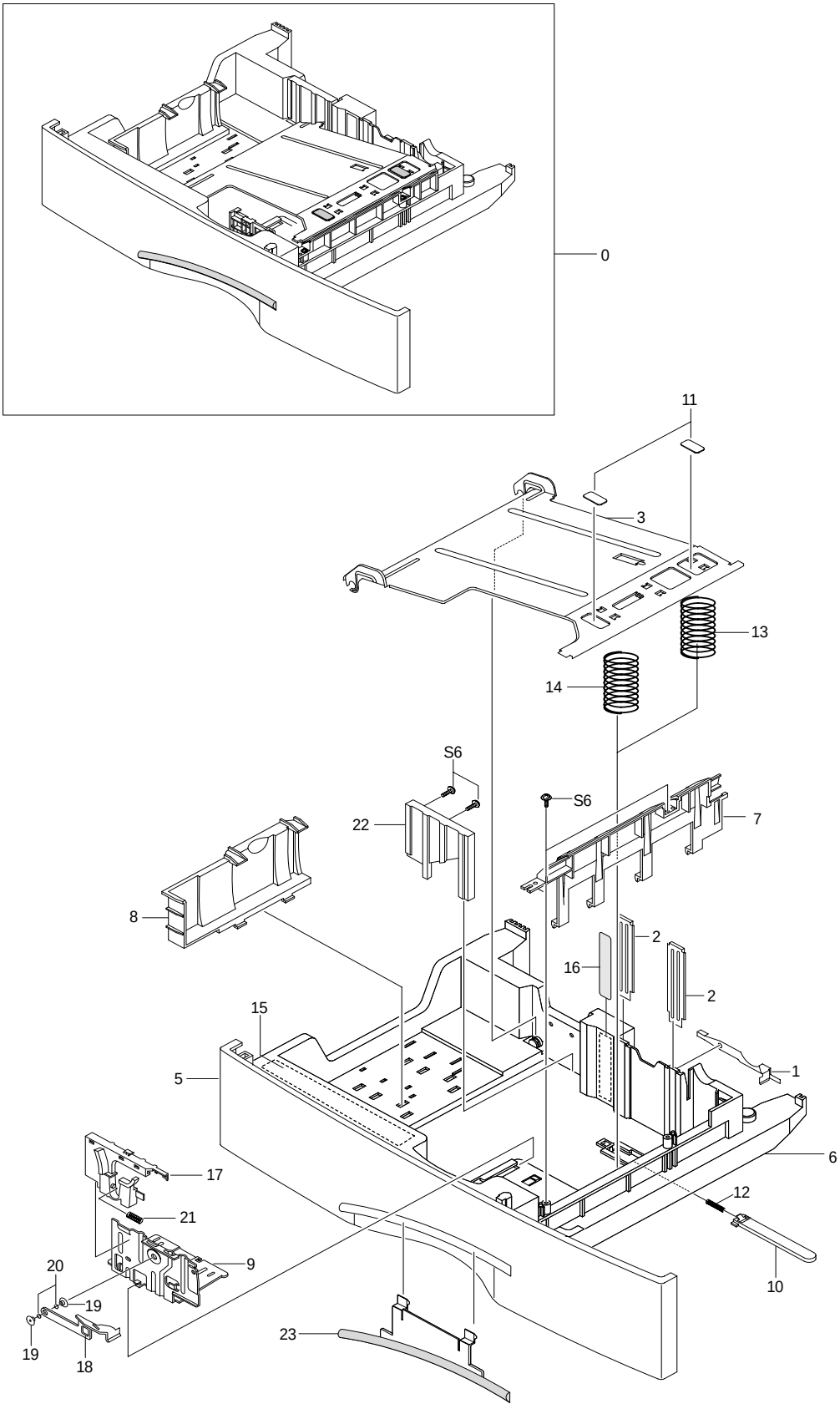


Side Cover Ass'y Parts List

NO	DESCRIPTION	SEC CODE	Q'TY	SA	REMARK
0	ELA HOU-SIDE COVER	JC96-02183B	1	O	
1	MEA UNIT-DUPLEX ASS'Y	JC97-01578A	1	X	
1-1	PMO-GUIDE DP SIDE	JC72-00806A	1	O	
1-2	CBF HARNESS-SCAN GND	JC39-00046A	1	X	
1-3	SPRING ETC-FUSER EXIT	JC61-70976A	2	O	
1-4	GEAR-DUP IDLER 17	JC66-00341A	3	O	
1-5	GEAR-MP/DUP DRV	JC66-00346A	1	O	
1-6	IPR-BRKT G DUP	JC70-00233A	1	O	
1-7	PMO-GP LOWER DP	JC72-00732A	1	O	
1-8	PMO-SHAFT DUP DRIVER	JC72-00764A	2	O	
1-9	PMO-ROLLER_EXIT	JC72-40361A	2	X	
1-10	RPR-RUBBER EXIT	JC73-10203A	2	O	
1-11	PMO-BUSHING TX(B4)	JG72-40744A	1	O	
2	IPR-PLATE SAW	JC70-10232A	1	O	
3	PMO-FEED FRAME	JC72-00731A	1	O	
4	PMO-HOLDER SAW	JC72-41213A	1	O	
5	IPR-BRACKET GUIDE A	JC70-00229A	1	O	
6	PMO-LOCKER SIDE R	JC72-00763A	1	O	
7	PMO-LOCKER OPEN	JC72-00762B	1	O	
8	SPRING ETC-LOCKER TORSION	JC61-00479A	1	O	
9	SPRING ETC-FEED	JC61-00478A	2	O	
10	MEA UNIT-TRAY	JC97-01577B	1	X	
10-1	PMO-TRAY CASE,MP	JC72-00776A	1	O	
10-2	PMO-TRAY EXT,MP	JC72-00778A	1	O	
10-3	PMO-SIDE GUIDE MP	JC72-00547G	1	O	
10-4	PMO-TRAY COVER,MP	JC72-00777A	1	O	
10-5	IPR-GUIDE LATCH	JB70-10906A	1	O	
10-6	PMO-TRAY LINK,MP	JC72-00857A	1	O	
10-7	LABEL(R)-HEIGHT,MP	JC68-00697A	1	O	
11	CBF HARNESS-OPE GND	JC39-00036A	1	O	
12	PMO-TIE STOPPER	JC72-00766A	2	O	
13	IPR-BRKT GROUND B	JC70-00230A	1	O	
14	IPR-BRKT GROUND TR	JC70-00231A	1	O	
15	IPR-BRKT GROUND A	JC70-00232A	1	O	
16	IPR-BRACKET GUIDE B	JC70-00234A	1	O	
17	PMO-BUSHING FEED	JC72-00730A	1	O	
18	RING-CS	6044-000001	2	O	
19	PMO-SIDE COVER	JC72-00765A	1	O	
20	ICT-SHAFT LOCKER	JC70-00266A	1	O	

O : Service available X : Service not available

5-5. Cassette Ass'y Exploded View & Parts List

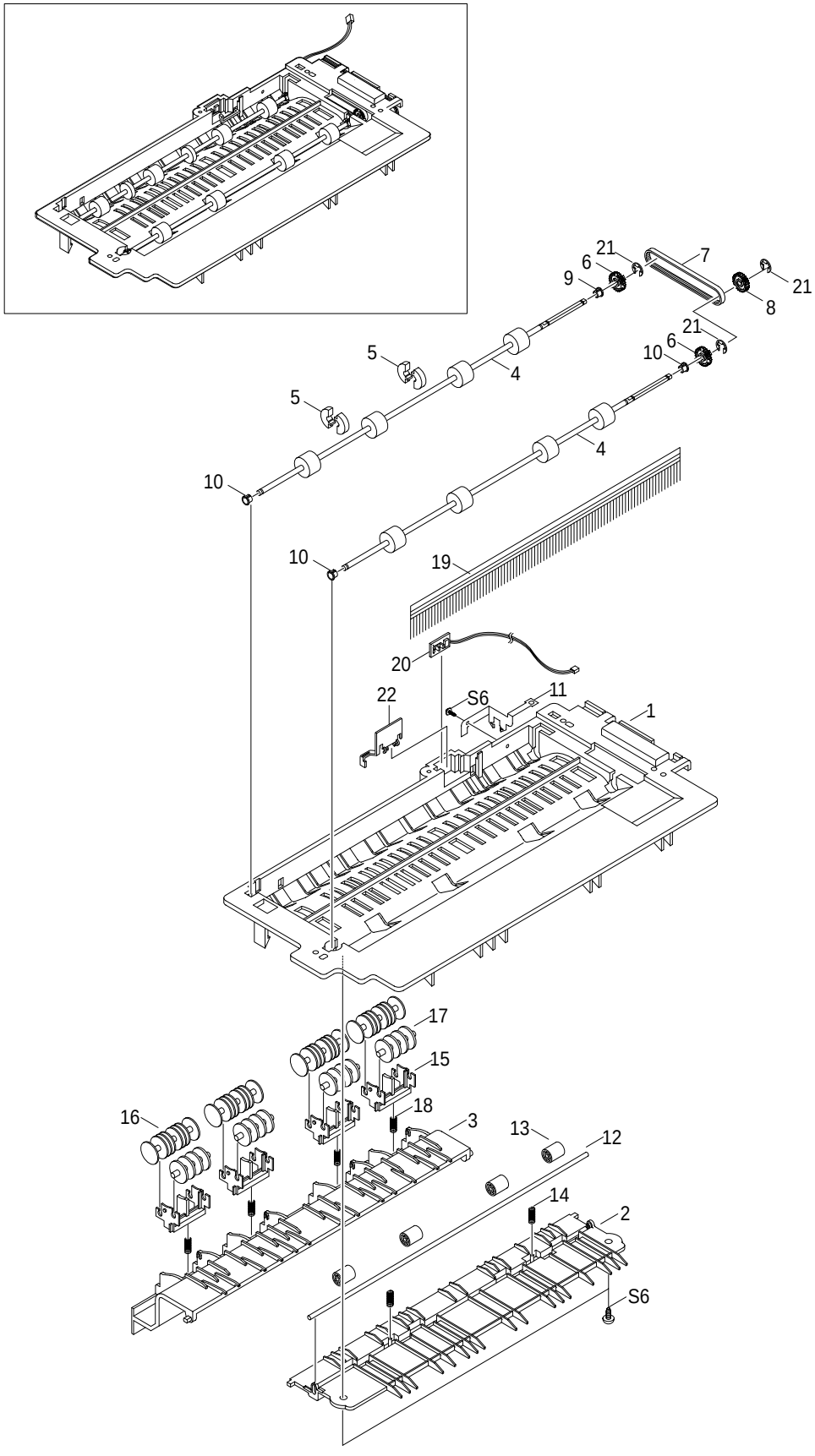


Cassette Ass'y Parts List

NO	DESCRIPTION	SEC CODE	Q'TY	SA	REMARK
0	MEC-CASSETTE PLUS ASS'Y	JC97-01736A	1	O	
1	IPR-FINGER	JC70-00220A	1	O	
2	PLATE GUIDE PAPER	JC61-00831A	2	O	
3	IPR-PLATE K/UP	JC70-00221A	1	O	
5	PMO-COVER CASSETTE	JC72-00795A	1	O	
6	PMO-FRAME CASSETTE	JC72-00716A	1	X	
7	GUIDE FRONT CST PLUS	JC61-00825A	1	X	
8	PMO-GUIDE REAR	JC72-00717A	1	O	
9	GUIDE SIDE CST	JC61-00826A	1	X	
10	PMO-LOCKER PLATE	JC72-41210A	1	O	
11	PAD-CST PLUS	JC69-00474A	2	X	
12	SPRING-LOCKER PLATE	JG61-70531A	1	O	
13	SPRING CS RE	6107-001190	1	X	
14	SPRING CS FR	6107-001191	1	X	
15	LABEL(R)-INSTRUCTION CST PLUS	JC68-00692B	1	X	
16	LABEL(R)-HEIGHT CST	JC68-00709A	1	X	
17	GUIDE SIDE HANDLE	JC61-00824A	1	X	
18	IPR FINGER LEFT	JC70-00325A	1	O	
19	PMO-BUSHING FINGER, F	JC61-00653A	2	O	
20	WASHER PLAIN	6031-001255	2	X	
21	SPRING WHITE BAR	JC61-00548A	1	O	
22	GUIDE SUB WALL	JC61-00840A	1	O	
23	PMO-IMPACT CASSETTE	JC72-00877A	1	O	

O : Service available X : Service not available

5-6. Exit Ass'y Exploded View & Parts List

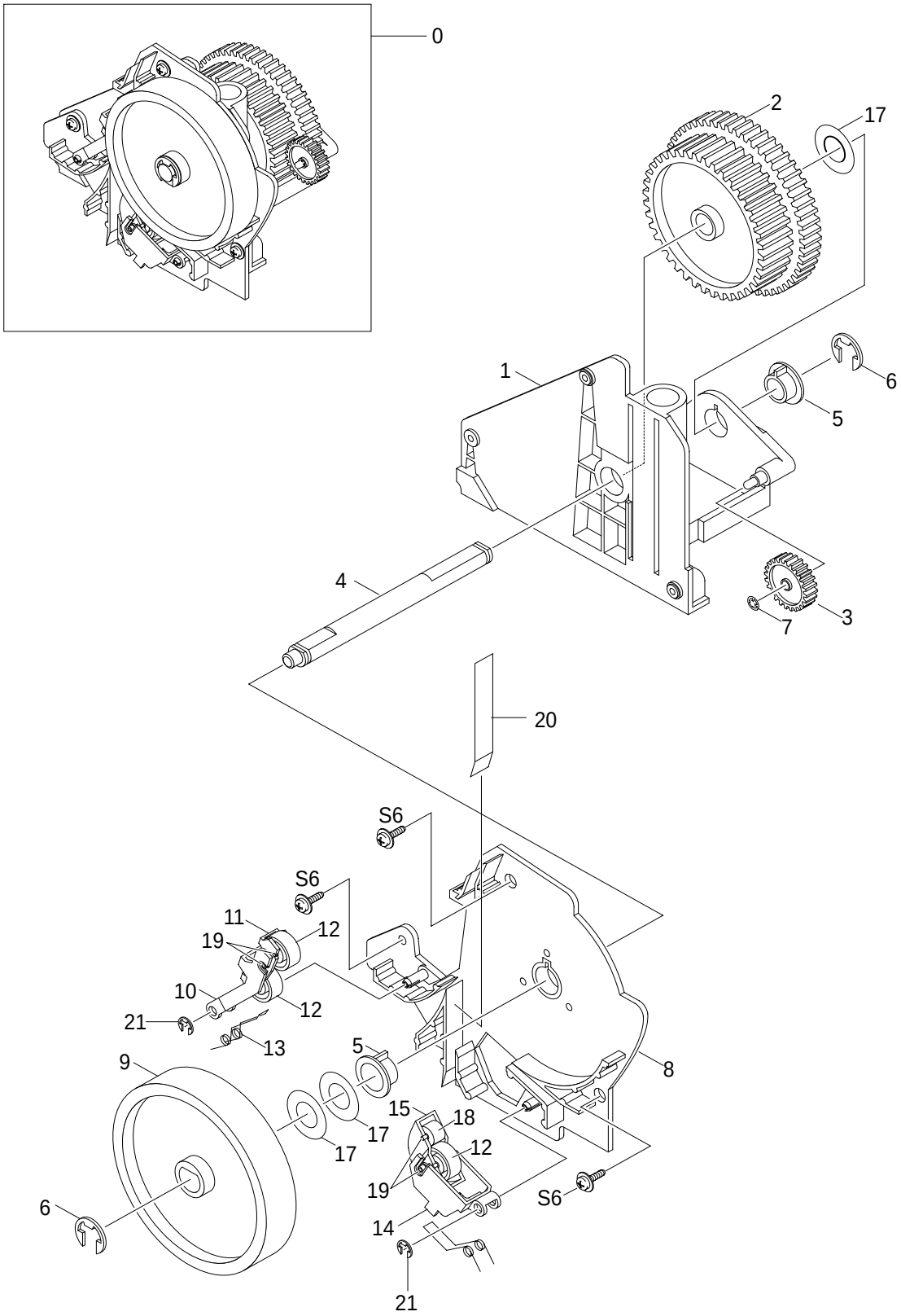


Exit Ass'y Parts List

NO	DESCRIPTION	SEC CODE	Q'TY	SA	REMARK
0	MEA UNIT-EXIT ASS'Y	JC97-01643A	1	O	
1	PMO-GUIDE-EXIT UPPER	JC72-00708A	1	O	
2	PMO-GUIDE-EXIT LOWER	JC72-00710A	1	O	
3	PMO-GUIDE-JAM REMOVE	JC72-00712A	1	X	
4	MEC-ROLLER EXIT DRV	JC75-00127A	2	O	
5	PMO-ROLLER DECURL	JC72-00833A	4	O	
6	PMO-PULLEY DUPLEX	JC72-40980A	2	O	
7	BELT-TIMING GEAR	6602-001084	1	O	
8	GEAR-DUPLEX	JC66-40912A	1	O	
9	PMO-BEARING LARGE DP	JC72-00885A	3	O	
10	PMO-BEARING LARGE DP	JC72-40978A	1	O	
11	IPR-GROUND-EXIT	JC70-00252A	1	X	
12	ICT-SHAFT-EXIT LOWER ID	JC70-00274A	1	X	
13	PMO-ROLLER_EXIT	JC72-40361A	4	X	
14	SPRING ETC-EXIT ROLL FD	JC61-70911A	2	X	
15	HOLDER-EXIT(MC)	JC61-00547A	4	X	
16	PMO-ROLLER FD F	JC72-41007A	4	O	
17	PMO-ROLLER FD R	JC72-41008A	4	O	
18	SPRING ETC-EXIT LOWER IDLE	JC61-00484A	4	X	
19	MEC-BRUSH ANTISTATIC	JC75-00095A	1	O	
20	PBA SUB-BIN_FULL_SEN.	JC92-01400A	1	O	
21	RING-C	6044-000159	3	X	
22	PMO-LEVER-STACKING	JC72-00709A	1	O	

O : Service available X : Service not available

5-7. Feeder Ass'y Exploded View & Parts List

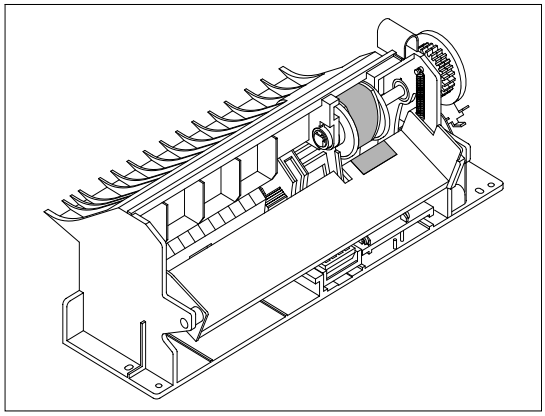


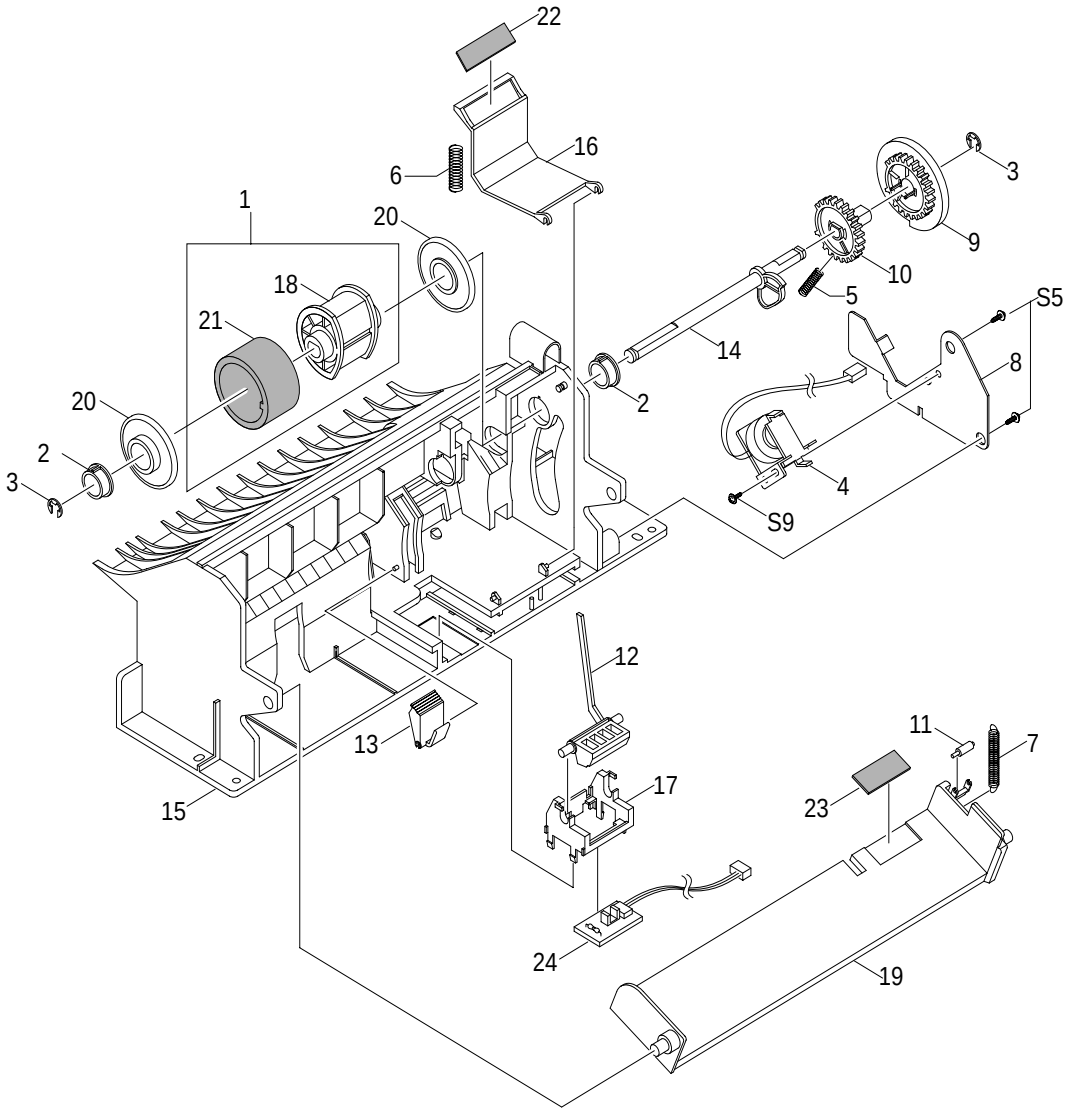
Feeder Ass'y Parts List

NO	DESCRIPTION	SEC CODE	Q'TY	SA	REMARK
0	MEA-FEED ASS'Y	JC75-00143B	1	O	
1	PMO-FRAME FEED	JC72-00821A	1	X	
2	GEAR-FEED	JC66-00332A	1	O	
3	GEAR-MP/DUP DRV	JC66-00346A	1	X	
4	ICT-SHAFT FEED	JC70-00267A	1	X	
5	BEARING-PICKUP	JC66-10202A	2	X	
6	RING-E	6044-000125	2	X	
7	RING-CS	6044-000001	1	X	
8	PMO-BRKT FEED	JC72-00720A	1	X	
9	PMO-ROLLER FEED	JC72-00727A	1	O	
10	PMO-HOLDER PINCH C	JC72-00723A	1	X	
11	PMO-HOLDER PINCH SUB	JC72-00725A	1	X	
12	PMO-ROLLER FEED L	JC72-40261A	3	O	
13	SPRING-FEED CAST	JC61-00480A	1	X	
14	PMO-HOLDER PINCH M	JC72-00724A	1	X	
15	PMO-SUB HOLDER FEED	JC72-40266A	1	X	
16	SPRING-FEED MP	JC61-00481A	1	X	
17	WASHER-PLAIN	6031-000021	3	X	
18	PMO-ROLLER FEED S	JC72-40262A	1	X	
19	IPR-SHAFT FEED IDLER	JC70-10230A	4	X	
20	SHEET FEEDER	JC63-00259A	1	X	
21	E-RING	6044-000159	2	X	Ø3

O : Service available X : Service not available

5-8. MP Ass'y Exploded View & Parts List



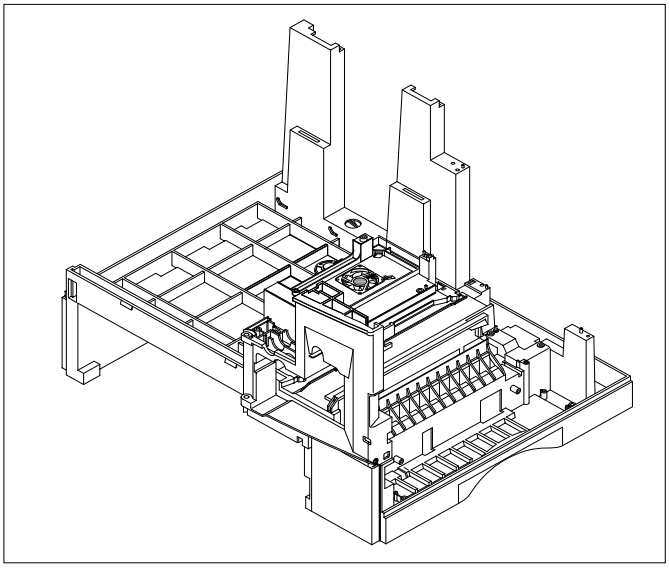


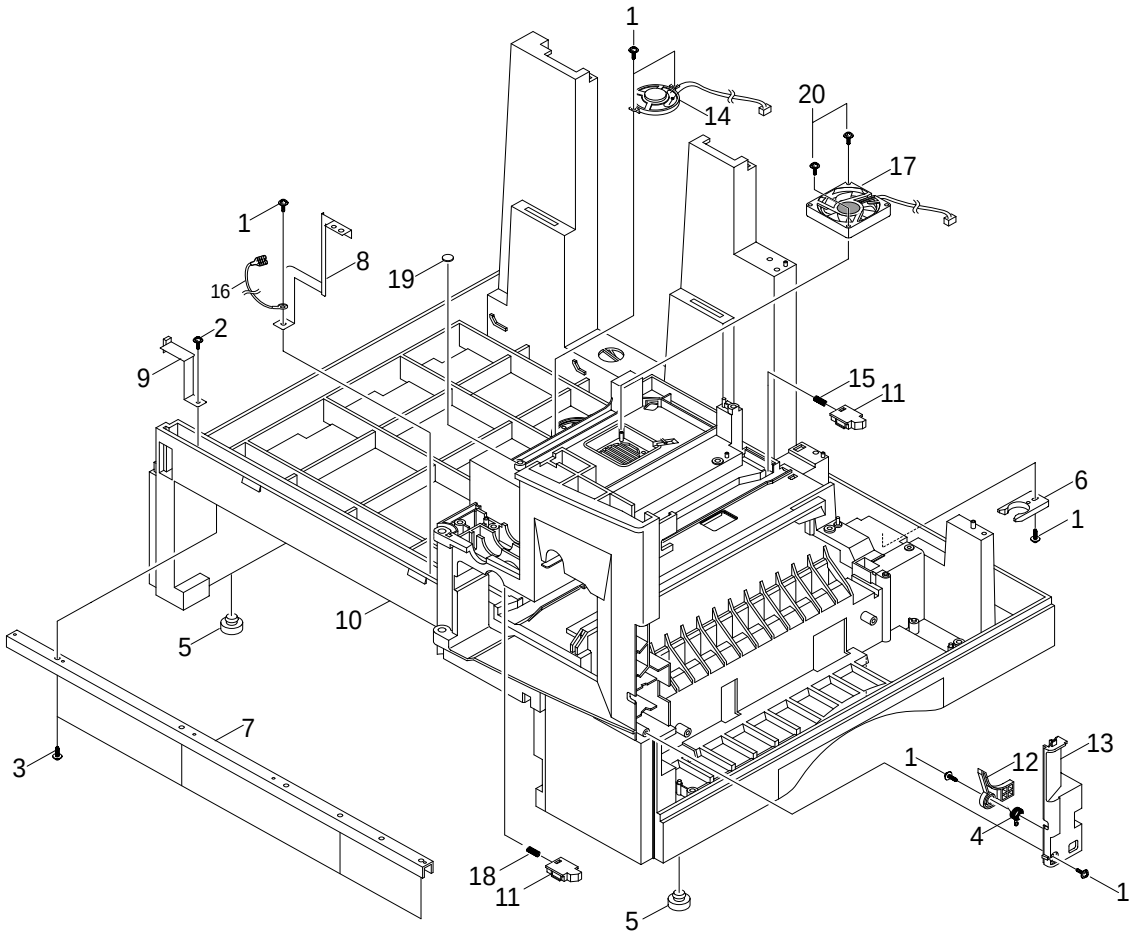
MP Ass'y Parts List

NO	DESCRIPTION	SEC CODE	Q'TY	SA	REMARK
0	ELA HOU-MP ASS'Y	JC96-02182A	1	O	
1	A/S-PICK UP, MP AS(FRU)	JC81-00427A	1	O	
2	PMO-BUSHING PICKUP,MP	JC72-41364A	2	O	
3	RING-E	6044-000125	2	O	
4	SOLENOIDE,MP	JC33-00006A	1	O	
5	SPRING-CAM MP	JC61-00003A	1	O	
6	SPRING-PICK UP,MP	JC61-00549A	1	X	
7	SPRING-KNOCKUP,MP	JC61-00483A	1	O	
8	IPR-BRACKET SOLENOIDE	JC70-00237A	1	X	
9	PMO-HOLDER CAM MPF	JC72-00055A	1	X	
10	PMO-GEAR P/U MPF	JC72-00056A	1	X	
11	PMO-ROLLER CAM.MP	JC72-00761A	1	X	
12	PMO-ACTUATOR,MP	JC72-00767A	1	O	
13	PMO-ADJUSTER,MP	JC72-00768A	1	O	
14	PMO-CAM PICK UP,MP	JC72-00769A	1	O	
15	PMO-FRAME,MP	JC72-00770A	1	O	
16	PMO-HOLDER PAD,MP	JC72-00771A	1	O	
17	PMO-HOLDER SENSOR,MP	JC72-00772A	1	O	
18	PMO-HOUSING PICK UP,MP	JC72-00773A	1	X	
19	PMO-PLATE KNOCK UP,MP	JC72-00775A	1	X	
20	PMO-IDLE PICK UP,MP	JC72-41027A	2	O	
21	RPR-RUBBER PICK UP,MP	JC73-00089A	1	X	
22	RPR-RCT-PAD-PICKUP,MP	JC73-00090A	1	O	
23	RPR-PAD KNOCK UP,MP	JC73-10906A	1	O	
24	PBA SUB-MP SEN	JC92-01362A	1	O	

O : Service available X : Service not available

5-9. Base Frame Exploded View & Parts List



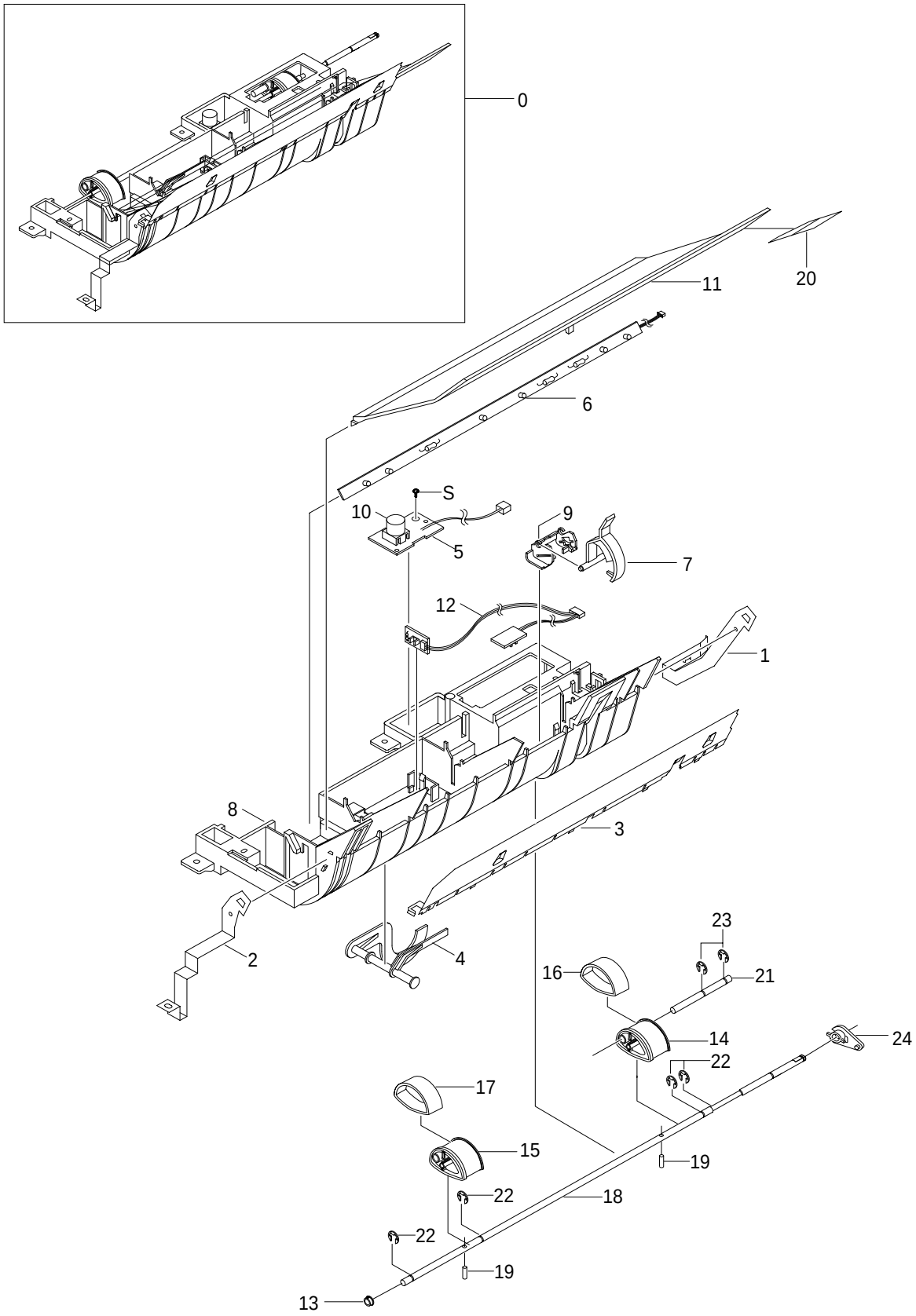


Base Frame Parts List

NO	DESCRIPTION	SEC CODE	Q'TY	SA	REMARK
0	ELA HOU-BASE FRAME	JC96-02818A	1	O	SCX-5315F
	ELA HOU-BASE FRAME	JC96-02818B	1	O	SCX-5115
1	SCREW-TAPTITE	6003-000196	5	X	
2	SCREW-TAPTITE	6003-000269	2	X	
3	SCREW-TAPTITE	6003-001256	4	X	
4	SPRING ETC-TORSION	JC61-00486A	1	X	
5	FOOT-ML80	JC61-40001A	2	O	
6	CAM-CATCH	JC66-00050A	1	X	
7	IPR-CHANNEL BASE FRAME	JC70-00239A	1	X	
8	IPR-GROUND PLATE A(OPC)	JC70-00240A	1	O	
9	IPR-GROUND PLATE B(BASE)	JC70-00241A	1	O	
10	PMO-BASE FRAME	JC72-00779A	1	O	
11	PMO-BRACKET PUSH DEVE	JC72-00780A	2	X	
12	PMO-BRACKET SIDE OPEN	JC72-00781A	1	O	
13	PMO-COVER FRONT DUMMY	JC72-00785A	1	O	
14	ELA M/M-AUD SPEAKER	JC96-01607A	1	O	
15	SPRING ETC-DEVE REAR	JC61-00550A	1	X	
16	CBF HARNESS-OPC GND	JC39-00179A	1	X	
17	FAN-DC(LSU)	JC31-00026A	1	O	
18	SPRING ETC-DEVE FRONT	JC61-00551A	1	X	
19	SHEET-BASE FRAME	JC63-00242A	2	X	
20	SCREW-TAPPING	6002-000209	2	X	

O : Service available X : Service not available

5-10.Pick-up Ass'y Exploded View & Parts List

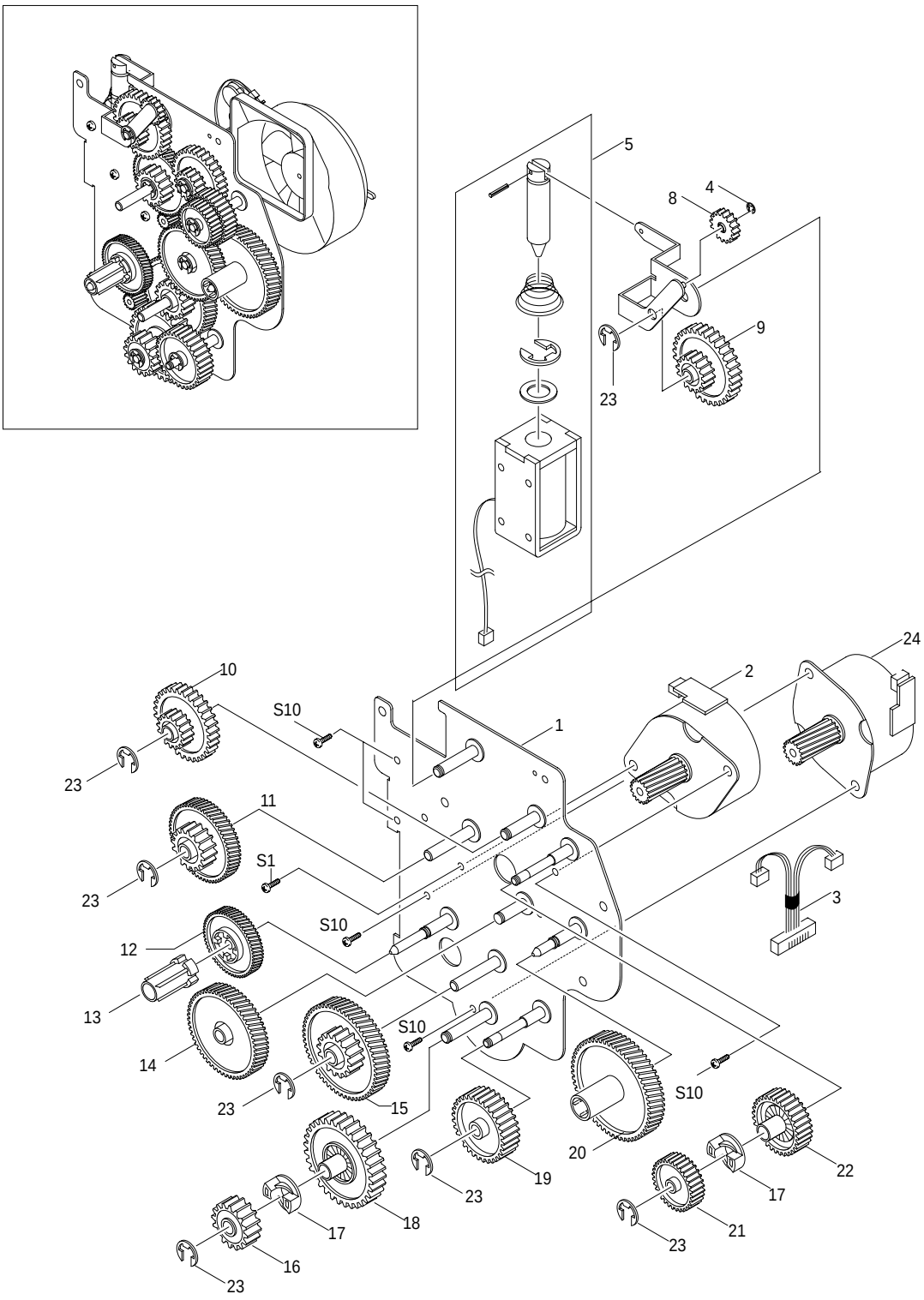


Pick-up Ass'y Parts List

NO	DESCRIPTION	SEC CODE	Q'TY	SA	REMARK
0	ELA HOU-PICKUP PLUS ASS'Y	JC96-02715B	1	O	
1	IPR-GND FEED	JC70-00238A	1	X	
2	IPR-GND INPUT	JC70-00235A	1	O	
3	IPR-GUIDE INPUT	JC70-00222A	1	O	
4	PMO-ACTUATOR NO PAPER	JC72-01313A	1	X	
5	PBA SUB-TONER_TX	JC92-01359A	1	O	
6	PBA SUB-PTL	JC92-01361A	1	O	
7	PMO-FEED SENSOR	JC72-00721A	1	X	
8	PMO-GUIDE PAPER	JC72-00722A	1	O	
9	PMO-HOLDER SENSOR FEED	JC72-00726A	1	X	
10	PMO-LENS TONER SENSOR	JC72-00803A	1	X	
11	PMO-PTL PATH	JC72-00822A	1	X	
12	PBA SUB-FEED+P.EMP SEN.	JC92-01363A	1	O	
13	PMO-BUSHING_P/U,MP	JC72-41364A	1	O	
14	HOUSING-PICKUP LARGE	JC61-00822A	1	X	
15	HOUSING-PICKUP SMALL	JC61-00823A	1	X	
16	RPR RUBBER PICKUP	JC73-00145A	1	X	
17	RUBBER PICKUP SMALL	JC73-00163A	1	O	
18	SHAFT-PICKUP CST	JC66-00672A	1	X	
19	SHAFT PIN ADF	JB70-00168A	1	X	
20	SHEET-PTL PATH	JC63-00083A	1	X	
21	SHAFT-SUB-PICKUP	JC66-00596A	1	X	
22	RING-E ID4	6044-000125	4	O	
23	RING-E ID5	6044-000231	2	O	
24	PMO-BEARING SHAFT	JC72-41191A	1	O	
S	SCREW-TAPTITE	6003-000119	1	X	

O : Service available X : Service not available

5-11. Drive Ass'y Exploded View & Parts List

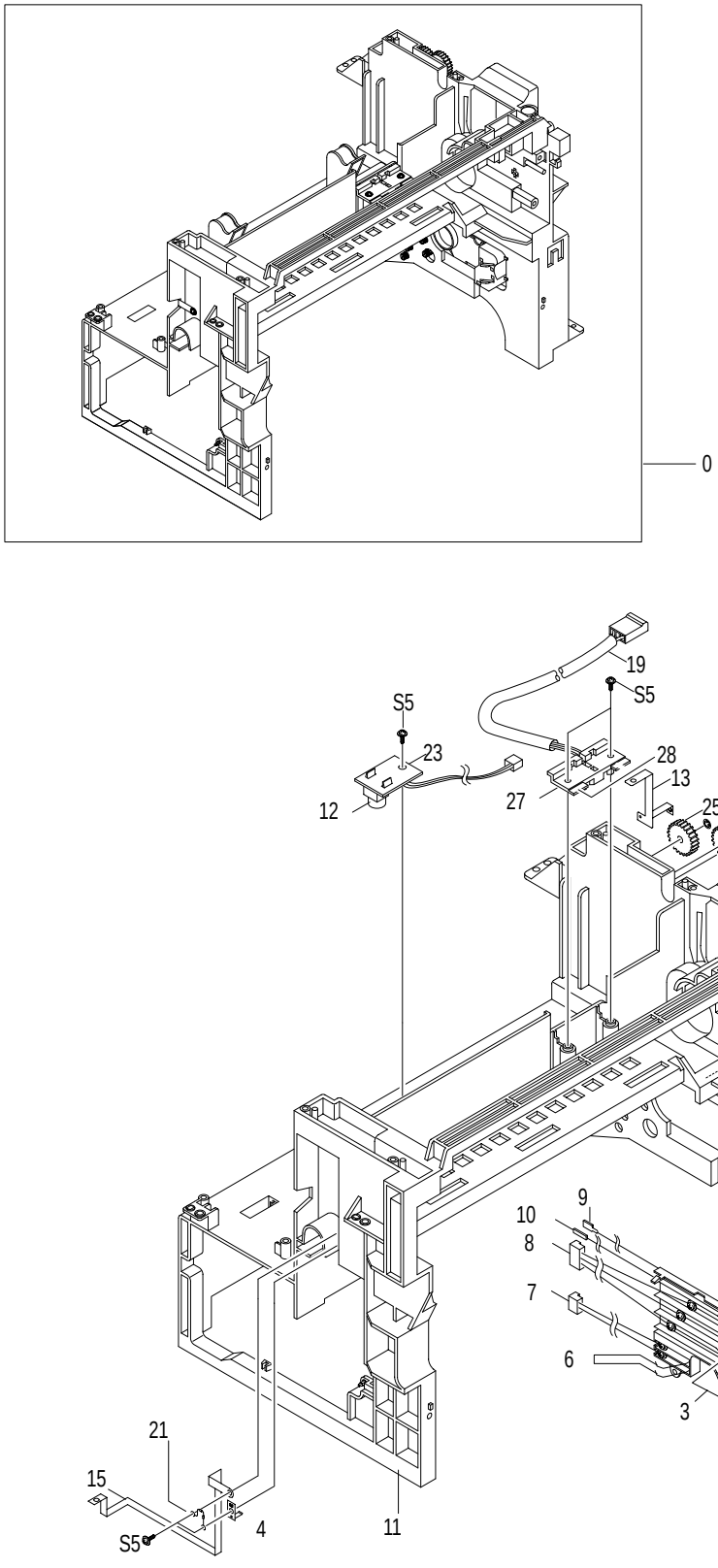


Drive Ass'y Parts List

NO	DESCRIPTION	SEC CODE	Q'TY	SA	REMARK
0	ELA HOU-DRIVE(15PPM)	JC96-02741A	1	O	
1	IPR-BRKT MOTOR	JC70-00257A	1	X	
2	MOTOR STEP-MAIN	JC31-00020B	2	O	M49SP-2K
3	CBF HARNESS-MOTOR	JC39-00165A	1	O	
4	RING-C	6044-000159	1	O	
5	SOLENOID-DUPLEX	JC33-00008A	1	O	
6	SPRING ETC-SOLENOID DP	JC61-70915A	1	X	
7	IPR-LINK SOLENOID	JC70-00258A	1	X	
8	GEAR-EXIT/U,ID	JC66-40211B	1	O	
9	GEAR-SWING DRV	JC66-00349A	1	X	
10	GEAR-35/19	JC66-00350A	1	X	
11	GEAR-71/23	JC66-00345A	1	X	
12	GEAR-DEVE DRV	JC66-00338A	1	X	
13	PMO-DEV/COUPLING	JC72-00743A	1	X	
14	GEAR-RDCN,OPC	JC66-00351A	1	X	
15	GEAR-86/23	JC66-00337A	1	X	
16	GEAR-RDCN FEED OUTER	JC66-00343A	1	X	
17	GEAR-HUB CLUTCH	JC66-00340A	2	X	
18	GEAR-RDCN FEED INNER	JC66-00342A	1	X	
19	GEAR-FEED DRV	JC66-00348A	1	X	
20	GEAR-OPC DRV	JC66-00347A	1	X	
21	GEAR-GEAR FUSER DRV OUTER	JC66-00334A	1	X	
22	GEAR-FUSER DRV INNER	JC66-00333A	1	X	
23	RING-E	6044-000231	7	O	
24	MOTOR STEP-MAIN	JC31-00028B	1	O	M4PSP-2NK

O : Service available X : Service not available

5-12. Main Frame Ass'y Exploded View & Parts List

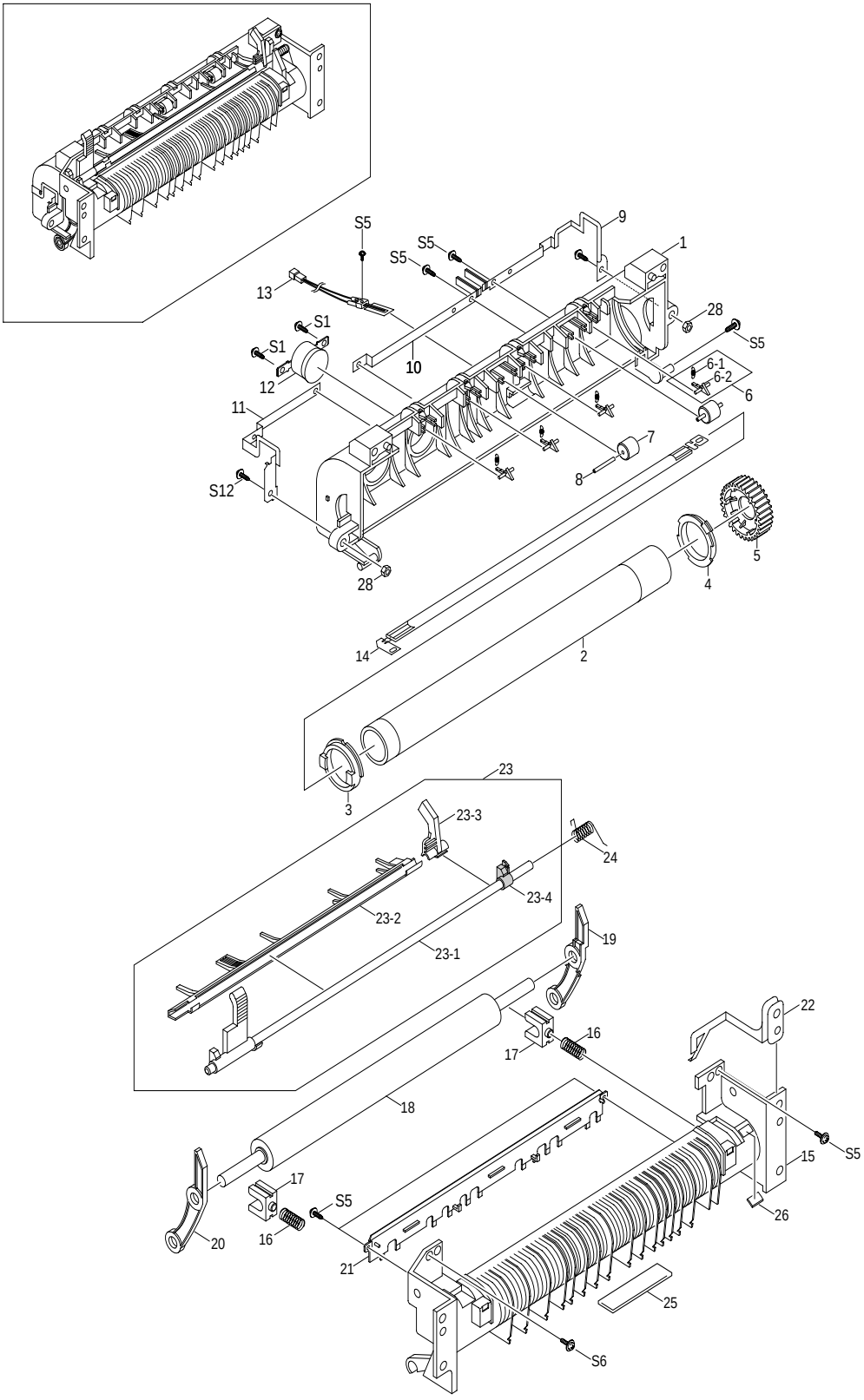


Main Frame Ass'y Parts List

NO	DESCRIPTION	SEC CODE	Q'TY	SA	REMARK
0	ELA HOU-FRAME MAIN ASS'Y	JC96-02184A	1	O	
1	PMO-HOUSING TERMINAL	JC72-00802A	1	O	
2	IPR-TERMINAL BLADE	JC70-00269A	2	X	
3	IPR-TERMINAL SUPPLY	JC70-00270A	2	X	
4	IPR-TERMINAL TR	JC70-00271A	1	O	
5	IPR-TERMINAL GND	JC70-00272A	1	O	
6	IPR-TERMINAL DEVE KEY	JC70-00273A	2	X	
7	CBF-HARNESS-DEV-ID	JC39-00166A	1	X	
8	CBF-HARNESS-BLADE+SUPPLY+DEV	JC39-00170A	5	X	
9	CBF-HARNESS-THV WIRE	JC39-00168A	1	X	
10	CBF-HARNESS-MHV WIRE	JC39-00169A	1	X	
11	PMO-FRAME MAIN	JC72-00800A	1	O	
12	PMO-LENS TONER SENSOR	JC72-00803A	2	O	
13	IPR-GND EXIT	JC70-00214A	1	X	
14	IPR-GND OPC	JC70-00216A	1	X	
15	IPR-GND OPC BASE	JC70-00217A	1	X	
16	IPR-GND FUSER	JC70-00215A	1	X	
17	IPR-GUARD C/O S/W	JC70-00218A	1	X	
18	IPR-GND TERMINAL	JC70-00219A	1	X	
19	CBF HARNESS-AC WIRE	JC39-00171A	1	X	
20	AS-SWITCH MICRO(FRU)	JC81-00438A	1	O	
21	CBF-HARNESS-EARTH(TX MOTOR)	JB39-00017A	1	X	
22	PBA SUB-EXIT SENSOR	JC92-01364A	1	O	
23	PBA SUB-TONER_RX	JC92-01360A	1	O	
24	GEAR-EXIT/U,ID	JC66-40211B	3	O	
25	GEAR-EXIT,IDLE(Z17)	JC66-40964A	2	O	
26	CBF-HARNESS THERMISTOR_JOINT	JC39-00164A	1	O	
27	PMO-HOUSING TERMINAL	JC72-41010A	1	O	
28	IPR-TERMINAL FU	JC70-10961A	2	O	
29	PMO-CAP CONNECTOR L	JC72-00463A	1	O	
30	PMO-CAP CONNECTOR U	JC72-00465A	1	O	
31	ELA HOU-MOTOR GND	JC96-01579A	1	X	
32	SPRING-CLUTCH	JB61-70922A	2	O	
33	RING-CS	6044-000001	5	O	

O : Service available X : Service not available

5-13. FuserAss'y Exploded View & Parts List

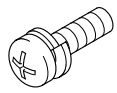
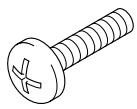
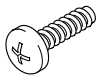
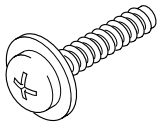
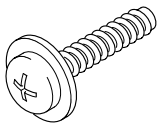
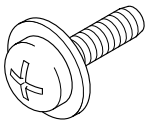
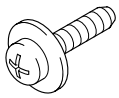
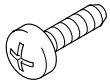
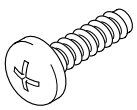
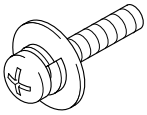


Fuser Ass'y Parts List

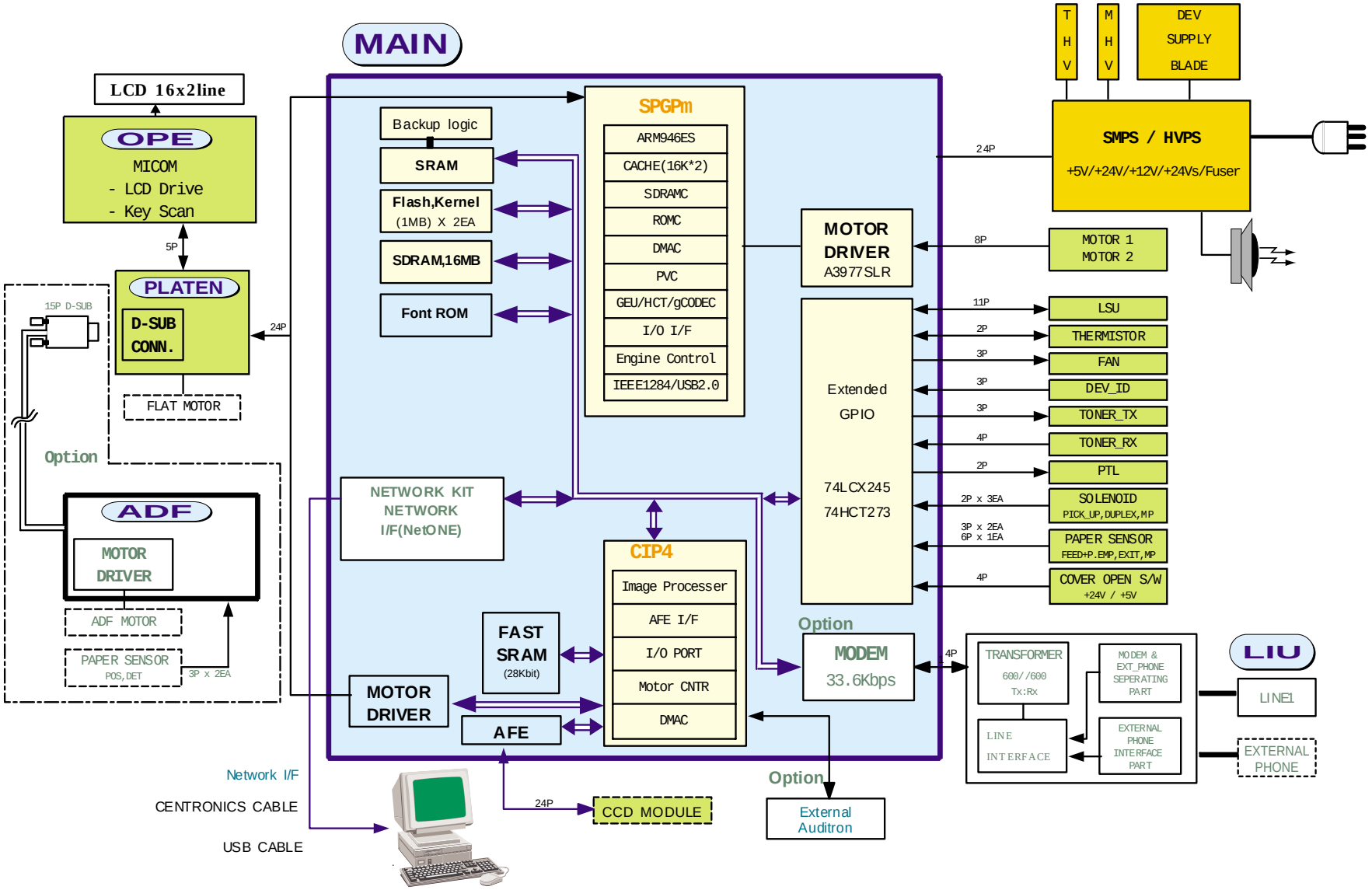
NO	DESCRIPTION	SEC CODE	Q'TY	SA	REMARK
0	ELA HOU-FUSER	JC96-02814A	1	O	110V
	ELA HOU-FUSER	JC96-02815A	1	O	220V
1	PMO-UPPER FUSER	JC72-00812A	1	O	
2	ROLLER-HEAT	JC66-00624A	1	X	
3	PMO-BEARING H/R-F	JC72-00814A	1	O	
4	BEARING-H/R L	JC66-10902A	1	O	
5	GEAR-FUSER	JC66-40913B	1	O	110V
	GEAR-FUSER	JC66-00669A	1	O	
6	MEA UNIT-CLAW ASS'Y	JC97-01587A	4	O	
6-1	SPRING ETC-SAPERATION	JC61-70909A	1	O	
6-2	PMO-GUIDE CLAW	JC72-00376A	1	X	
7	PEX-ROLLER EXIT F_UP	JC72-20901A	2	O	
8	IPR-PIN ROLLER EXIT	JC70-00064A	2	X	
9	NPR-ELECTRODE GEAR	JC71-00029A	1	O	
10	NPR-ELECTRODE M	JC71-00030A	1	O	
11	NPR-ELECTRODE F	JC71-00028A	1	O	
12	THERMOSTAT	4712-000001	1	O	
13	THERMISTOR	JC14-00001A	1	O	
14	LAMP-HALOGEN	4713-001170	1	O	110V
14	LAMP-HALOGEN	4713-001171	1	O	220V
15	PMO-LOWER FUSER	JC72-00820A	1	O	
16	SPRING ETC-PR(7300)	JC61-00056A	2	O	
17	BEARING-PRESSURE/R	JC66-10901A	2	O	
18	ROLLER-PRESSURE	JC66-00623A	1	X	
19	PMO-LEVER JAM R	JC72-01262A	1	O	
20	PMO-LEVER JAM F	JC72-01259A	1	O	
21	PMO-GUIDE INPUT	JC72-00817A	1	O	
22	IPR-GROUND FU	JC70-00259A	1	O	
23	MEA UNIT-ACTUATOR ASS'Y	JC97-01611A	1	O	
23-1	PMO-ACTUATOR EXIT	JC72-00810A	1	O	
23-2	PMO-GUIDE DUPLEX	JC72-00816A	1	O	
23-3	PMO-ARM ACTUATOR	JC72-00811A	1	O	
23-4	GUIDE-REMOVE	JC61-00546A	1	X	
24	SPRING ETC-ACTUATOR6G	JC61-00485A	1	O	
25	LABEL(R)-CAU_HOT_FU	JC68-30928B	1	X	
26	LABEL(R)-HV FUSER	JC68-00407A	1	X	
27	LABEL FUSER M+	JC68-01102A	1	X	
28	NUT-HEXAON	6021-000222	2	X	

O : Service available X : Service not available

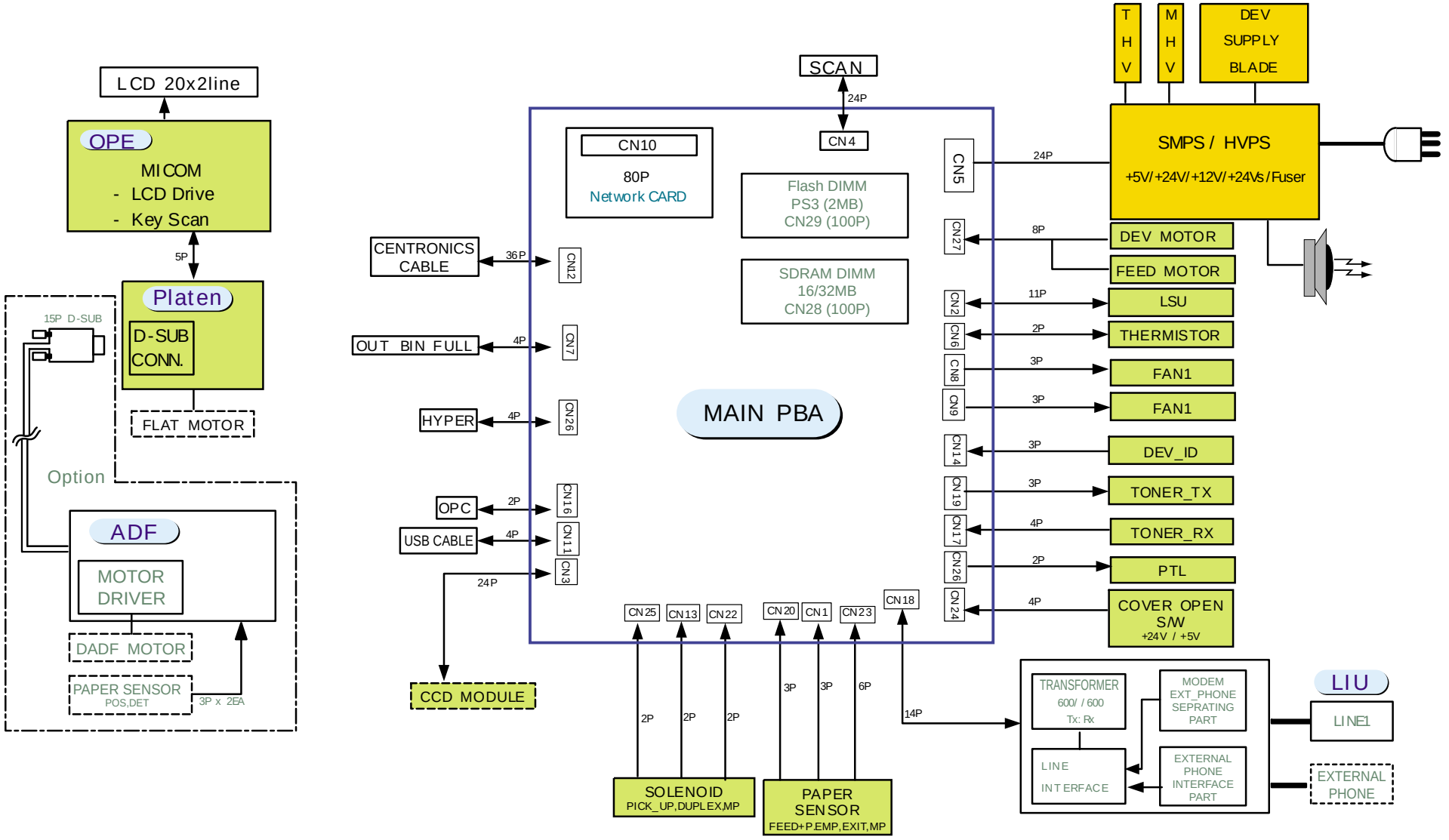
5-14. Screw

NO	SEC CODE	DESCRIPTION	SPEC.	
S1	6006-000127	SCREW-ASS'Y MACH	WS,PH,+,M3,L6,ZPC(YEL),MSWR15	
S2	6001-000568	SCREW-MACHINE	PH,+,M3,L8,NI PLT,SM20C,-	
S3	6002-000175	SCREW-TAPPING	PWH,+,2,M3,L8,ZPC(YEL),SM20C	
S4	6002-000351	SCREW-TAPPING	PH,+,2,M2,L8,ZPC(YEL),SM20C	
S5	6003-000119	SCREW-TAPTITE	BH,+,B,M3,L8,CBLACK,SWRCH18A	
S6	6003-000196	SCREW-TAPTITE	PWH,+,B,M3,L10,NI PLT,SWRCH18A	
S7	6003-000198	SCREW-TAPTITE	PWH,+,B,M3,L12,ZPC(YEL),SWRCH1	
S8	6003-000221	SCREW-TAPTITE	PWH,+,S,M4,L8,ZPC(YEL),SWRCH18	
S9	6003-000266	SCREW-TAPTITE	PWH,+,S,M3,L6,ZPC(YEL),SWRCH18	
S10	6003-000269	SCREW-TAPTITE	BH,+,S,M3,L6,ZPC(YEL),SWRCH18A	
S11	6003-001256	SCREW-TAPTITE	BH,+,B,M4,L10,NI PLT,SWRCH18A	
S12	6006-001031	SCREW-ASS'Y MACH	WSP,PH,+,M3,ZPC(YEL),SM10C	

6. Block Diagrams



7. Connection Diagrams



CON No.	Pin No.	Description
CN1 EXIT	1	5VCC
	2	EXIT SENSOR
	3	GND

CON No.	Pin No.	Description
CN2 LSU	1	HSYNC*
	2	5VS
	3	GND
	4	LD_ON*
	5	VDO*
	6	NC
	7	LSU_CLK
	8	LREADY*
	9	PMOTOR
	10	GND
	11	24VS1

CON No.	Pin No.	Description
CN3 CCD MODULE	1	GND
	2	CCD_VOB
	3	GND
	4	CCD_VOR
	5	GND
	6	CCD_VOG
	7	GND
	8	GND
	9	CCD_PI_TG1
	10	CCD_PI_TG1
	11	CCD_PI_TG1
	12	GND
	13	CCD_PI_RS
	14	CCD_PI2
	15	CCD_PI1
	16	GND
	17	GND
	18	CCD_PI_CP
	19	5V
	20	GND
	21	CCD_HOME
	22	24V
	23	INV_POWER
	24	GND

CON No.	Pin No.	Description
CN4 SCAN	1	GND
	2	24V
	3	5V
	4	GND
	5	ADF_PHA
	6	GND
	7	SCAN_ADF_IA(1)
	8	SCAN_ADF_IA(0)
	9	SCAN_ADF_IB(0)
	10	ADF_PHB
	11	MODULE_DETECT
	12	SCAN_ADF_IB(1)
	13	ADF_P_POS
	14	ADF_P_DET
	15	NC
	16	ADF_P_REGI
	17	OPE_RXD
	18	OPE_RST
	19	OPE_TXD
	20	FLAT_COVER
	21	TM_A
	22	TM_NA
	23	TM_B
	24	TM_NB

CON No.	Pin No.	Description
CN5 PWR/ HVPS	1	GND
	2	5V
	3	GND
	4	5V
	5	GND
	6	5V
	7	GND
	8	12V
	9	GND
	10	24V
	11	GND
	12	24V
	13	GND
	14	24V
	15	THV_PWM
	16	+24VS1
	17	THV_EN
	18	+24VS1
	19	THVREAD
	20	FUSER_ON
	21	MHV_PWM
	22	SPK+
	23	DEV_PWM
	24	SPK-

CON No.	Pin No.	Description
CN6 THERMISTER	1	THERM
	2	THERM

CON No.	Pin No.	Description
CN7 OUT_BIN_FULL	1	5V
	2	OUTBIN_FULL*
	3	GND

CON No.	Pin No.	Description
CN8 FAN	1	24V
	2	FAN

CON No.	Pin No.	Description
CN9 FAN	1	24V
	2	FAN

CON No.	Pin No.	Description
CN10	80P	NPC

CON No.	Pin No.	Description
CN11	6P	USB PORT

CON No.	Pin No.	Description
CN12	36P	PARALLEL PORT

CON No.	Pin No.	Description
CN13 DUPLEX_SOL	1	24V
	2	DUPLEX_SOL

CON No.	Pin No.	Description
CN14 DEV_ID	1	DEV_ID
	2	GND
	3	GND

CON No.	Pin No.	Description
CN16 OPC	1	NEW_OPC
	2	GND

CON No.	Pin No.	Description
CN17 TONER_ RX	1	NC
	2	TONER_RX
	3	GND
	4	NC

CON No.	Pin No.	Description
CN18 LIU	1	MODEM_RX
	2	GND
	3	MODEM_TXA1
	4	MODEM_TXA2
	5	12V
	6	REMOTE
	7	CML1
	8	HOOK2*
	9	RING_DET*
	10	5V
	11	DP
	12	GND
	13	RECALL
	14	E_DP*

CON No.	Pin No.	Description
CN19 TONER_ TX	1	5V
	2	TONER_TX
	3	NC

CON No.	Pin No.	Description
CN20 FEED/ PEMPTY	1	5V
	2	FEED*
	3	GND
	4	5V
	5	PEMPTY
	6	GND

CON No.	Pin No.	Description
CN21 PTL	1	5V
	2	PTL

CON No.	Pin No.	Description
CN22 MP_SOL	1	24V
	2	MP_SOL

CON No.	Pin No.	Description
CN23 MP_EMP TY	1	5V
	2	MP_EMPTY
	3	GND

CON No.	Pin No.	Description
CN24 COVER S/W	1	5V
	2	5VS
	3	24V
	4	24VS

CON No.	Pin No.	Description
CN25 PICK_UP_SOL	1	24V
	2	MAIN_SOL

CON No.	Pin No.	Description
CN26 HYPER I/F	1	5V
	2	HYPER_TXD
	3	HYPER_RXD
	4	GND

CON No.	Pin No.	Description
CN27 FUSER, FEED MOTOR	1	FEED MOTOR B
	2	FEED MOTOR A
	3	FEED MOTOR B*
	4	FEED MOTOR A*
	5	FUSER MOTOR A
	6	FUSER MOTOR B
	7	FUSER MOTOR B*
	8	FUSER MOTOR A*

Memo